HX REPORT

Aligning Our Tech Future With Our Human Experience

PEOPLE | ORGANIZATIONS | IDEAS

all tech is human

"There's no fate but what we make. Technodeterminism is a myth. The future of technology is in our own hands; it doesn't follow some predestined narrative or glossy CEO fever dream. We can still choose brighter, more positive futures if we want them. I still have immense faith in technology as a transformative and positive force – keeping sight of that promise is what keeps me going." -**Cennydd Bowles, Managing Director, NowNext**

"Given my background in urban planning and community advocacy, I've always prioritized engaging and incorporating the voices and visions of a diverse spectrum of people into my process. In my field of work, I'm usually designing physical or digital tools that aim to improve the quality of life for people who live in cities. That's why HX feels intuitive to me – HX is built on a foundation of valuing, understanding, and celebrating people first, rather than being distracted by tech solutionism." -**Nneka Sobers, Research + Program Manager at Cornell Tech's Urban Tech Hub**

"There's a miscommunication between adults and young people, especially our parents. Adults think that our tech use as young people is much less important because we aren't answering work emails or connecting with our colleagues on LinkedIn...Technology means different things to us than it does to our parents in some ways, and that is where conversations about human experience (HX) can be helpful to bridge that divide." -**Alexa Gwyn, University Student, Youth Adviser for RALLY and the HX Team, Headstream Alum**

"I believe in a future where digital media education is a required school course that's integrated into the core curriculum." -**Tami Bhaumik, Vice President, Civility & Partnerships at Roblox**

"To live harmoniously with technology, we should think about how it can enhance the systems that support humanity. We have used technology to solve adjacent inconveniences or a singular issue but not thought of how these inventions create new and future problems. We have arrived at this issue because we have been so focused on a few humans; instead, we need to shift to where the interconnected relationships of the human experience are elevated." -**Atulya Chaganty, Multidisciplinary Designer**

"As the world becomes increasingly digital, tech companies will become increasingly responsible for designing healthy and safe environments for people, who will also become more educated about these impacts and develop loyalties accordingly." -**Michael Preston, Executive Director, Joan Ganz Cooney Center at Sesame Workshop**

"We need to have more conversations across disciplines and share best practices openly. I see a lot of conversations among academics and those in the nonprofit sector about the evils of social media, but not a lot of engagement with those in the industry who are actually trying to run community operations such as content moderation." -**Alice Hunsberger, Senior Director of Customer Experience, Grindr**

"I think, fundamentally, a healthy relationship to technology is a critical one, one that lives in the space between what is possible with technology and how corporate interests prefer we use technology – as data farms. I think we have to learn to use technology outside of the strictures of the app store; a healthy relationship to technology crafts tool use and behaviors to our human needs, not the other way around." -**Parker Miles, PhD. Candidate, University of Michigan**

"*Paradoxically, connection is one of the most powerful tools that technology offers, and when we are unable to be authentically ourselves when engaging with technology, we lose access to that tool. Therefore, to have a healthy relationship with technology, digital spaces must exist in which we can comfortably be ourselves.*" -**Zoe Adelsheim, University Student, Co-Founder of #GoodforMEdia**

"*I look around and I see immense possibilities all around me. It could go very badly. We could absolutely come out of this worse than we came in. Anyone -- any future -- can come out on top. So, why not us? Why not team human?*" -**Sahar Massachi, Co-founder and ED, Integrity Institute**

"*[T]echnology can never replace the human imagination. As important and ubiquitous as tech is in many of our lives, our experience is shaped by the decisions and actions made by people. It's a reminder that is as empowering as it is sobering. Tech is created by people. It's created by us. As long as we can imagine a better tech future, we can certainly build it.*" -**Joi Rae, Head of Operations and Partnerships at New_ Public**

"*We need to recognize technology is an extension of our physical spaces and thus we need to extend the same degree of civilization, norms, and rules we have governing us in settings like a public plaza, a library, an art museum, a highway, or a school. We need structures, accountability and oversight, with an overriding principle that is centered around the greater good – supporting and benefiting society.*" -**Vicki Harrison, MSW, Program Director, Stanford Psychiatry Center for Youth Mental Health & Wellbeing**

"For HX, I first ask myself, what do people need? Considering real emotions is an important part of this question. From my perspective, we all crave authentic connections and we want to feel heard, seen and we are enough. Our diverse backgrounds, life experiences and perspectives are invaluable and should be accounted for in designing technology and improving our relationship with it. When we truly understand the person on the other side of the technology holistically, we have the opportunity to inspire them." -**Ameen Berjis, High School Student, Headstream Youth Leader**

"Currently, social media is a me media ("I am so sexy, talented, and/or funny"). We can turn social media into a we media that offers different ways to engage with each other so that our connections are deepened and we feel listened to by others." -**Niobe Way, Professor of Psychology, NYU and Co-founder of Agapi**

"Without fundamentally changing the business model, we just get slightly less bad social media that doesn't address root cause issues. To really change things, we need values-driven leadership and values-driven changes to the business model — in coordination with all of the other solutions we're all working on." -**Maria Bridge, Chief Communications Officer, Center for Humane Technology**

"What's kept me optimistic has been the enthusiasm from the people around me about technology and folks in our industry who genuinely care for the betterment of humanity and our future. There are countless organizations and folks dedicated to this work, and I do not doubt that their contributions will impact society at large." -**Tazin Khan, Founder, Cyber Collective**

INTRODUCTION

"We must go into emergency mode to put humanity at the center of technology." -UN Secretary General Antonio Guterres, January 2022

"A shared understanding of HX [Human Experience] can help us better understand our relationships with technology, make better decisions, and inspire researchers, innovators, and product makers to be more responsive to our diverse human needs." –HXproject.org

Let's get the bad news out of the way: There is no magic bullet solution that will instantly solve the myriad of issues related to digital technologies, particularly social media, and their impact on our wellbeing, on how we communicate, and on the overall human condition.

But here's the good news: Through collective efforts that tie together multiple stakeholders and perspectives, we can dramatically improve the current situation. Aligning our tech future with our human experience, which is the focus of this report, relies on better understanding the experiences of the diverse range of groups affected and creating a participatory model to build consensus on the best path forward.

In other words: **No application without representation**. Our organization, which is committed to uniting a broad range of stakeholders to co–create a better tech future, believes that we need a paradigm shift away from trickle–down thought leadership that fails to incorporate a wide range of voices in the process of developing and deploying technology.

This report was developed in a way that's unique to All Tech Is Human. We assembled a working group and communicated both up and down simultaneously – disseminating information while collecting diverse perspectives. We aim not just to speak, but to listen. And not only to consider the experiences of others, but also to bake them into the process. *Nihil de nobis, sine nobis* ("Nothing about us, without us").

For this report, we set out to listen to a broad range of individuals across sectors, disciplines, locations, ages, and perspectives around better aligning our tech future with human experience and to explore the concept of HX [Human Experience]. All Tech Is Human is a collaborator with HXproject.org and has been part of a working group over the last year co-convened by Pivotal Ventures, the investment and incubation company created by Melinda French Gates, and Susan Crown Exchange, that has been trying to unpack this complex issue that intersects with multiple fields and movements. Other organizations that are currently members of the HXproject.org working group include Data & Society, Aspen Institute, Headstream Innovations, Project Zero, Connected Learning Lab, and Connected Camps.

INTRODUCTION

As the recently launched site illustrates, **"HX is an approach to talking about, engaging with, and designing technology in a way that is aligned with our needs as humans – not users."**

To be clear, we view this report as a starting point to stimulate greater conversation and involve even more groups and perspectives in the evolving concept of HX. This report was informed by our large working group of more than 150 participants, 45 profile interviews, two online mixers with breakout discussions, feedback through our large Slack group, learnings from our previous reports (such as *Improving Social Media* and the *Responsible Tech Guide*), live streams, and gatherings. For example, our previous working group and report for Improving Social Media emphasized that groups often have dramatically different opinions about what an improvement would actually look like (*more regulation? less regulation? shift toward privacy? move toward the blockchain?*).

Our participatory model that weaves together multiple perspectives is entirely intentional, as it surfaces and holds space for the variety of opinions, research, and resources needed to solve a complex problem and gathers energy and support as, together, we chart a path forward.

Tackling the topic of how to align our tech future with the human experience quickly surfaced the many interlocking issues involved – issues around product design, business models, content moderation, digital citizenship, tech augmentation, and tech–related wellbeing. These six key areas we identified are all part of the same puzzle, but they're typically treated separately by communities that typically don't work together.

In our opinion, this is what needs to change if we are going to have substantial advancement toward a tech future better aligned with our human experience. Complex problems require an approach that recognizes the interplay of multiple concerns and unites groups working on solutions under one umbrella: HX. Our report utilizes the metaphor of a Rubik's Cube because it represents not only the complexity of the issue, but also how the multiple sides interact with each other. **If we are going to tackle this thorny issue, we will need to move away from one–dimensional thinking in search of a magic bullet and shift toward the constantly iterating interplay of many moving parts.**

We don't just welcome your opinions and feedback on this report – we actively assert that you – the reader – should be part of the process. Please write us at Hello@AllTechIsHuman.org, join our HX channel on our Slack group, and stay in touch with HXproject.org.

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Let's focus on our HX (Human Experience)

The "tech conversation" feels stuck at the moment. Given all the recent media attention around the potential adverse impacts of digital technologies (particularly social media) on areas such as wellbeing and policymaker saber-rattling about reining in the tech industry, there is a growing consensus that society has a problem on its hands. But where do we go from here if we actually want to move toward solutions? How can we align our tech future with our human experience?

That's where the conversation is stuck. It feels easy to point out the problems, but much harder to bring forward fixes and improvements satisfying to a wide swath of the public. Part of the reason, in my opinion, is that we have a tendency to flatten complex issues into overly simplified narratives that focus on one part of the puzzle instead of trying to understand the whole puzzle. What we need most is whole-systems thinking to tackle complex societal issues.

In our HX Report, we focus on the entire puzzle. That is why, as you see on the cover, we use the analogy of a Rubik's Cube—incredibly hard, but solvable, with multiple aspects and a process where a move on one side affects another side's color. That is also why we intentionally brought together so many different perspectives and backgrounds for our large working group for this report. We need them all.

There are multiple parts of the puzzle to understand, but they are rarely if ever mixed together. We firmly believe that needs to change, which is why our non-profit, All Tech Is Human, is on a mission to unite a diversity of stakeholders to co-create a better tech future that is aligned with the public interest. We need to develop a more cohesive movement that promotes knowledge-sharing and collaboration.

The concept of HX (Human Experience), which blends together movements from human-centered design, digital citizenship, humane technology, responsible tech, and more, is a newer way to talk about and engage with technology that appreciates its ubiquity and complexity.

HX is a Rubik's Cube, and it's time to start solving it.

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All Tech Is Human is a non-profit committed to uniting a diverse range of stakeholders to co-create a better tech future. Multidisciplinary, multi-sector, and multiple perspectives.

We act as the connective tissue between the people, organizations, and ideas of the nascent Responsible Tech movement. Since 2018, our organization has been busy helping map, build out, and support the growing ecosystem. The ethos of All Tech Is Human is highly participatory, focusing on bidirectional communication to both inform and be informed by the community.

We have a range of activities here at All Tech Is Human, all focused on bringing people and organizations together, promoting a knowledge-sharing and collaboration, and being a major stimulus for tackling thorny tech & society issues.

Our organization convenes large and open working groups that develop reports (like this one), holds regular summits and gatherings, runs a large Slack group for the community, and operates a Responsible Tech Job Board, Responsible Tech Mentorship Program, and Responsible Tech University Ambassadors program. Our flagship resource is the Responsible Tech Guide, which has quickly become the go-to resource for understanding the ecosystem and discovering pathways to get more involved.

In order to align our tech future with the public interest, we have to understand the values and perspectives of the public. Our organization aims to involve a wide range of stakeholders and perspectives, which offers us a unique, holistic understanding of complex issues and how best to blaze a path forward.

All Tech Is Human is based in New York City with a global audience and approach. Our fiscal sponsor is Hopewell Fund. The vast majority of our funding comes from foundations. We are currently supported by Ford Foundation, Patrick J. McGovern Foundation, Susan Crown Exchange, and Pivotal Ventures, the investment and incubation company created by Melinda French Gates.

To see all of our projects and links, please visit linktr.ee/AllTechIsHuman or AllTechIsHuman.org

The HX process: aligning our tech future with our human experience

SIX KEY CONSIDERATIONS

- **Product Design**: inclusive design, diversity by design, human rights by design, international by design, human-centered design, safety by design, privacy by design

- **Broken Business Model:** need for social and individual wellbeing over profits/engagement; community ownership of social spaces; individuals' control of their data

- **Content Moderation:** "Trust & Safety"; free speech vs. censorship; terms of service; safety policy; privacy policy; secure & safe spaces

- **Digital Citizenship:** rights of expression, access, participation, association, conscience; digital divide; the 3 digital age literacies that afford citizenship; children's rights, human rights,

- **Tech Augmentation**: natural and virtual worlds, digital spaces augmenting physical ones, facilitating connection; tech vs. natural world, human nature, AR/VR/XR

- **Tech & Wellbeing**: workplace culture, diversity, equity & inclusion, community building, tech for enhancing mental health and mitigating harm

SIX MAJOR TOPICS OF HX

Complex problems are always multifaceted, with multiple moving, interconnected parts. Our report uses the Rubik's Cube metaphor to illustrate how intricately each piece is connected with another – you cannot just focus on one, but rather must understand how they all work together. We have clustered the input from participants into the six major themes below, and surfaced nine key questions for each of them (in accordance with the six sides and nine squares on a Rubik's Cube).

These are just a start – and a way of thinking about the elements involved in assembling a tech future that puts human wellbeing at the center. As you review these themes and their questions, consider how you might rearrange this cube and what insights might come from shifting patterns and connections.

The following six key topics of HX, along with the nine questions for each specific topic, were developed by our open working group of over 150 people from various backgrounds and perspectives from across the globe. In addition, we incorporated learnings from two recent online Responsible Tech mixers and the themes the working group saw emerge from the 45 profile interviews featured in this report.

HX is an evolving concept based on the input of the community. To offer your feedback and suggestions the six major topics of HX (and the report in general), please join our new HX channel on our community Slack group, write us at Hello@AllTechIsHuman.org, and get involved with HXproject.org.

We will be updating this report as your feedback comes in; you can always find the most up-to-date version by going to HXreport.org.
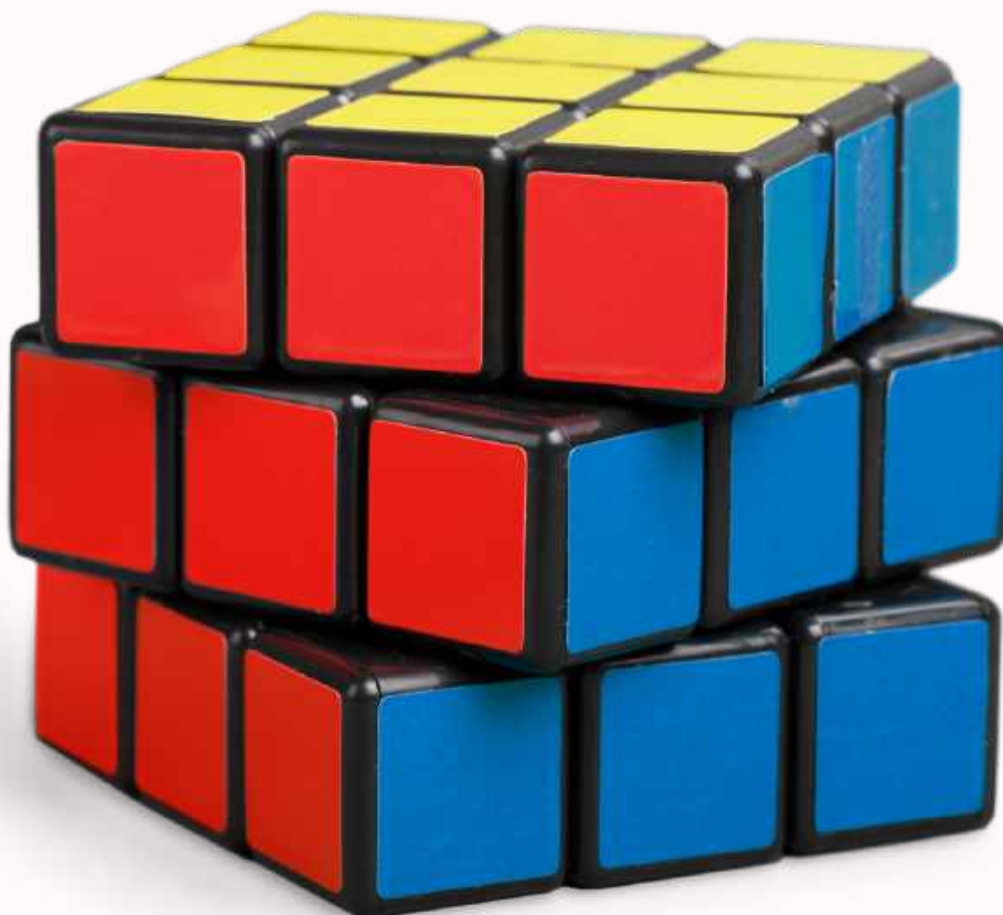
PRODUCT DESIGN

How would our world look if we centered our most marginalized members in product design?

HX Design requires participatory & inclusive design and seeks to balance the power between those who create products and the people and communities that consume or utilize the products. The application of HX Design requires evolution within every step of a traditional development life cycle – beginning with education and training. It demands accountability from each and every stakeholder involved in the conceptualization, design, development, and use of the product.

Ultimately, all people have a right to a respectful experience that preserves their agency and dignity when using products. This means that the design must center what is best for the humans behind the product rather than promoting engagement at all costs. While a lot of work needs to be done for HX Design, there is great promise in all of us working together so we can better align technology with our needs, and rights, as humans.

- How might we build relationships to listen to and co-create with the communities a product may impact?

- How might we incentivize designers and developers to consider ethical impacts of the product design – including identifying any risks, harms, or unintended consequences?

- How do you foster a culture of accountability (perhaps as a form of empowerment and meaning) for designers and developers?

- How do we keep considerations of materiality – physical, environmental impacts, and the attending overlapping issues of racial-social-environmental justice – in mind when designing new technologies?

- How might we improve the product development cycle to center equity and accessibility? (E.G., incorporate "equity pauses" for inquiry and listening – especially to communities that have been marginalized or affected by earlier decisions, prioritize usability tests for accessibility among all communities, etc.?)

- How might we develop products that foster safe and respectful technology interactions? (E.G., private by default, transparency, clear communication, etc.?)

- How might we design products that encourage thoughtful and mindful use? (E.G., incorporating intentional friction features?)

- How might we center HX, ethics, equity, and accessibility in the education and training of product developers, designers, and managers? (E.G., highlight the "curb cut" effect, etc.?)

- How might we center HX, ethics, equity, and accessibility in the everyday work and performance measures of product developers, designers, and managers?

BUSINESS MODEL

In today's environment of rapidly emerging technologies, we need not only to consider shareholder value but also to pay special attention to stakeholder value – the value added to participants, groups, and society as a whole by a company's product or service. **Stakeholder value takes a long-term perspective that prioritizes individual, societal, and community wellbeing with the understanding that we are all interconnected**.

Adapting to a more human-centric business environment requires companies to reassess their priorities in order to 1) understand the new challenges the digital age creates, 2) re-examine policies and procedures in the context of ethical use, 3) transform our organizations to new models that unleash human capital, with technology augmenting work, and 4) develop sustainable organizational cultures. Successful implementation of these strategies will require transformation in leadership, transparency and accountability, and community-based measurements that track and report on results.

- What specific structural changes to incentives and business models are needed in order to prioritize user wellbeing and human rights? What kinds of incentive systems (companies, people, regulators, societal) need to be tapped and how?

- How can we develop performance metrics and benchmarks tied to individual, social, and environmental wellbeing?

- How do we develop new business models that put humans at the center of the data life cycle – from collection to storage to use? (E.G., unbundling *personal data | algorithms | computing power | the network | ad models*)

- How do we infuse principles of human rights and human flourishing into tech design and development?

- How can we develop business models that provide an asymmetric advantage to prosocial, community-oriented products and content?

- How do we educate and raise awareness about revenue models aligned with the public interest – so that technologies that foster individual and community wellbeing are successful and profitable?

- How do we empower users and promote data dignity (including enabling ownership of personal data, community ownership of online spaces, etc.)?

- How do we ensure that new and emerging technologies and systems (metaverse, web3, etc.) do not reproduce and augment existing inequalities?

- What lessons can we learn from other fields (sustainability, human rights, corporate social responsibility) to help businesses foreground long-term wellbeing goals over short-term profits?

CONTENT MODERATION

In recent years, new trends and challenges around the intended and unintended uses of technology – especially social media – have shone a spotlight on critical and emerging issues around content moderation. Historic tensions between freedom of expression, censorship, and user safety have shifted from public spaces and traditional media environments to digital platforms. Policy makers, platform owners, and citizens are challenged with balancing harm reduction, regulation, privacy, and human rights.

HX considers ways to navigate these challenges by placing the agency and interests of people at the heart of technology processes – understanding trade-offs and their implications, strengthening engagement and trust, promoting accessibility, and working to create safe spaces for collaboration.

- How can we strengthen interdisciplinary engagement in technology development, deployment, governance, regulation, and oversight?

- How do we balance privacy, security, and freedom of expression as we develop experiences that are safe, secure, and open?

- How can we foster whole-of-community responses that address social consequences while protecting freedom of speech?

- What are best practices in protecting free speech and community wellbeing? What can we learn from other groups – human rights, architects of public spaces, etc.?

- How do we work together to balance safety and protection with privacy and civil liberty?

- How do we collectively and productively decide what is "fair," "safe," "respectful," and "true" in terms of online content and behavior?

- What elements do we need in order to create "safe" online spaces where prosocial behavior is incentivized and bad actors are limited?

- What technical safeguards, oversight, and best practices are needed to ensure safety by design as well as protection of human rights

- What are the roles of individuals, communities, policy makers, businesses, and machines in determining what content is "acceptable" and in which contexts?

DIGITAL CITIZENSHIP

Citizenship includes rights – and responsibilities. **HX Digital Citizenship considers the impact of digital technologies on a range of human rights** – including children's rights – which include rights of conscience, expression, access, participation, association and protection. It also addresses issues of literacy – the digital, media and social literacies of the digital age – as well as the digital divide.

- How do we increase access in a way that is aligned with human rights, privacy, ethics, accountability, and justice?

- How can we better understand and promote literacy in various forms – digital, media and social – for all ages?

- How do we shift thinking and discourse from "user" to "citizen" – with an emphasis on rights as well as responsibilities?

- What is the role of regulation in fostering the rights and responsibilities of digital citizenship?

- What can policymakers learn from product managers *and vice versa?*

- How can the design, governance, and accountability of our technology products foster democratic and human rights, equity, accessibility, and participation?

- How can individuals, groups, and communities within the society be involved and have a voice in the design, evaluation, and governance of technology?

- How do we bridge the gap between technical and non-technical groups interested in responsible tech?

- What lessons can we learn from other fields (journalism, human rights, ethics, philosophy, political science) that can help inform models and best practices for digital citizenship?

TECH AUGMENTATION

The Tech Augmentation topic encompasses all the ways that digital technology may interact with people and the physical world. This includes the obvious topics of connected technologies, sensors, "Internet of Things," augmented and virtual reality, as well as emerging concepts of the metaverse. It also includes the less obvious ways that technology can facilitate connection between people – and with the natural world.

- What is lost – and what is gained – by digitizing human connection? How do we design technology for connection?

- What does it mean to leverage technology to make us "better"?

- What would a human-centered metaverse look like? What sorts of community guidelines, content moderation, values and principles need to be built in from the start?

- What do we need to understand in order to build healthy, safe, inclusive, and fun technology-enabled shared experiences?

- What are important safety, privacy, identity, authenticity, and accountability considerations for immersive digital experiences?

- How do we balance convenience, security, and privacy in our interactions with connected devices (IoT)?

- How can we tell better stories of a human-centered tech future?

- How do we leverage technology to foster connection with local ecology and natural environments?

- How do we develop "regenerative technology" that transforms the extraction mindset and goes beyond minimizing environmental impact to develop solutions that help the natural world flourish?

TECH & WELLBEING

The influence of technology on human wellbeing is at the heart of HX. This broad topic includes workplace culture, work/life balance or integration, digital wellness, and mental health. It also includes issues of diversity, equity, and inclusion and other elements of community building. Each HX is unique – aligning technology in a way that supports this diversity of experience is part of the challenge.

- How might we make tech workplaces and work culture accessible and welcoming to a diversity of voices and experiences?

- How might we foster and support healthy work/life, digital/analog integration and boundaries for all types of work (onsite, hybrid, remote etc) ?

- How do we create a culture of transparency, freedom of expression, and safety for critical feedback in the workplace?

- How might we transform a business culture driven by competition and urgency to one that fosters consideration, thoughtfulness, and empathy?

- How might we leverage technology to better understand and support individual and community health and wellbeing?

- How can technology nourish our needs for belonging, meaning – and solitude?

- How can we create more opportunities for employees to engage in responsible technology work as a part of their core priorities?

- How do we balance preserving our mental health and engaging with internet culture and trends?

- How do we address the challenge of workers' wellbeing/wellness in traumatic contexts – such as those who directly work in content moderation?

Short for "human experience," HX is an approach to talking about, engaging with, and designing technology in a way that is aligned with our needs as humans — not users. What are some ways we can better align technology with our needs as humans?

We asked our working group this question, aiming to better understand the various perspectives related to improving our tech future. Here is a sampling of the responses about ways to better align technology with our needs as humans.

"By involving and engaging those with diverse and unique lived experiences into the design process, not just as informants and sources of information but as active participants." -**Elizabeth Li, Student at Columbia University**

"Technologies are created by humans. Improved technology alignment requires product decision-makers, product designers and producers - everyone involved - to develop a more keen sensitivity to the impact that choices large and small have upon the outcomes their products create."-**Dave Crusoe, VP - Product and Engineering - DoSomething.org**

"We can encourage the use of best practices around Safety by Design and ensure that we are taking a human rights driven approach to developing technology." -***Tom Thorley, Director of Tech, GIFCT***

"Replacing 'user' with 'citizen' in discussions about centered services, and journeys, design thinking and having a more utilitarian and abstract, and less US centered and concrete model of public service and public interest." -**Elle Brooker, Owner, Artistic Licence Innovation**

"By leveraging things like systems thinking solutions to focus on bottom up, community based approaches to design. To me, this means more tightly incorporating frameworks like design justice principles and circular economy values that highlight the holistic impact of design decisions over narrowly defined jobs to be done." **-Marissa Wilkins, Senior Interaction Designer**

"Decenter technology as the cure for being human!" **-Amanda Starling Gould, PhD, Sr. Program Coordinator & Instructor, Duke University**

"Disincentives for practices known to be harmful to individual (e.g. doom scrolling, exposure to untrusted content), remove the "optimization" component out of technology when it relates directly to human values (e.g. democracy, respect, etc.), prevent monopolies in order to ensure technology is not serving disembodied financial interests (back to "optimization")." **-Colin Vettier, Content Moderator**

What are some ways we can better align technology with our needs as humans?

"I believe it's important to consider humans as a whole, not just individuals, so we should keep in mind societal well-being as well. It might be sometimes in contrast with individual needs - in such cases we should hold discussions to come up with a consensus." -**Dany Stecova, UX Designer**

"HX requires that we regain agency in our digital lives. Each person needs a trusted computing space (like Tim Berners Lee's idea of PODs) where software runs for that person's benefit. Those algorithms can include advertisement selection so that media firms can serve relevant ads to the person but without exfiltrating any information about who that person is (just their attributes and perhaps a verified credential or two). Now the human has agency over their data and is shielded from many sources of manipulation." **-Vince Scafaria CEO at DotAlign**

"We would first have to determine what defines our needs in relation to technology and attempt to establish regulation that is flexible enough to withstand technological development." **-Karla Saavedra Betancourt, Fellow @ DIAL**

"We can better align technology with our human needs by working to understand a community's needs and developing technology to address on-the-ground issues, rather than developing technology in hopes people will use it." **-Josh Chapdelaine, Co-Founder, Digital Void**

"I believe that in order to improve the digital wellness aspect of HX using technology, we must understand the individualized and personalized nature of digital wellness and the human experience as a whole. Each HX is unique, and I believe that aligning technology in such a way that supports this diversity of experience is, in itself, addressing a human need." **-Autumn Stevens, Recent graduate, University of Colorado Boulder**

"The needs of humans - society at large - needs to be taken into consideration at the beginning of the development of any new technology. Like cybersecurity, like user experience, like so many things, it cannot be tacked on at the end or figured out after it's a complete product. We need to have a broader range of people involved in the development so those various needs are taken into consideration - and taken seriously. -**Amy Vernon, Director, Brand & Digital Strategy - Kaiju Capital Management**

"Ensuring that technology is designed to address the needs of diverse communities including historically marginalized groups; incorporating the viewpoints of the broadest possible group of stakeholders at each stage of the design process; thinking long-term about the possible outcomes that can be achieved by integrating and aligning technology with human systems and processes." -**Paul Miller, US Country Manager- Whizz Education**

What are some ways we can better align technology with our needs as humans?

"Listen to, observe, and spend time within multiple communities to discover the needs and wants of both individuals and groups. Try to leave assumptions and biases behind. Do not lead with technology, but rather with a better understanding of people. Only then can we discover where technology should play a role in people's lives, and where it shouldn't." -**Michael Nicholas, CEO, Troo Co.**

"One factor is designing in a way that represents our inherent complexity as people and communities, rather than as labels in which we can be pigeonholed and judged. We need to move back towards an understanding and an appreciation of our complexity as individuals and societies in order to be better set up to deal with the most complex challenges of our time including internet governance and climate change."-**Renee Black, Founder of GoodBot**

"Focus on accessibility. Accessible design improves the experience for all human (and machine) users from improved usability, findability, learnability, credibility, etc." -**Noreen Whysell, Head of Validation Research at Me2b Alliance**

"I think we can do so by promoting top down change, through regulation but also bottom up advocacy, by 1) raising awareness among the technologists and designers/builders to understand human interest and seeking alignment with values 2) reskilling the humans to embrace their humanity and become more responsible 'users' and creators." -**Ayca Ariyoruk, Director of Global Partnerships and Communication, Soliya**

"Bringing in policy makers, psychologists and academia at an early stage to study and recommend ways to mitigate long-term consequences of the products/systems we create in the tech industry." -**Rohit Tipnis, Product Manager at Bain and Company**
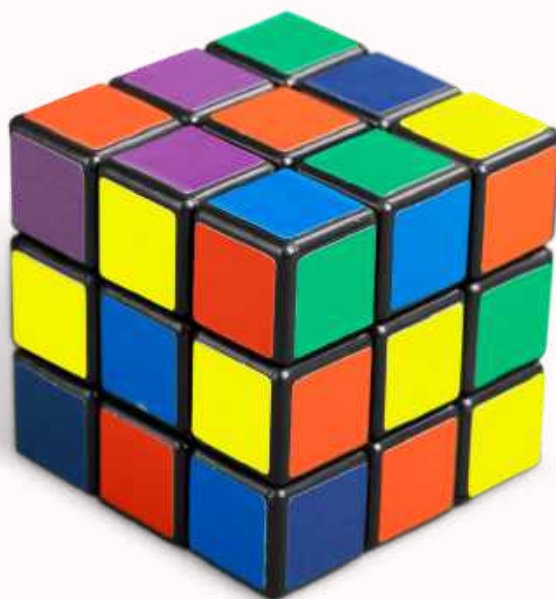
Garnering Youth Expertise

"Nothing about us without us," now so much the spirit of the Responsible Tech movement, has to include youth. Not only do young people play a central role in the early adoption of technology, in research about its impact, and in media coverage of its effects, they also represent a huge proportion of the online population worldwide. People under 18 represent fully one-third of the world's Internet users, according to UNICEF research.

"Nothing about us without us" is also their right – it's the principle behind Article 12 of the 33-year-old UN Convention on the Rights of the Child (UNCRC), which details the human rights of all people under 18 (and has been ratified by every country on the planet except the United States). Article 12 refers to "the right of every child to freely express her or his views in all matters affecting her or him and the subsequent right for those views to be given due weight, according to the child's age and maturity." As for the *technology* affecting them, a major trend around the world, from the Young & Resilient Research Center's work in Sydney to the Global Forum on AI for Children in Helsinki to the development of the CRC's own General Comment 25 on youth *digital* rights last year, more and more businesses, NGOs, researchers and policymakers are consulting with youth as the experts on teens' experiences in and with digital tech and media.

THE VIEW FROM YOUTH LEADERS AND ADVISERS

A central aim of this report, as well as the HX Project, is to surface teens' and young adults' views on and lived experience with technology. Below is just a sampler. Their full interviews are woven into those of other members of the Responsible Tech community in this report, because this community doesn't view them as a separate group; we see youth as a key stakeholders in the HX ecosystem. You'll see why later on this page, if you scroll down to the views from the four programs – in pediatrics, mental healthcare, business, and investing – that incorporate the following perspectives in their work.

Zoe Adelsheim, university student, co-founder of #GoodforMEdia at Stanford University

Peer-mentoring can really help: "These days, youth are spending more and more time on social media, starting at increasingly younger ages, and we believe that it is crucial to open up space for peer-to-peer conversations. Through these conversations, young people can share their social media experience with each other, as well as access tips and tricks to help improve their experiences with social media."

About what a healthy relationship with tech looks like: "Connection is one of the most powerful tools that technology offers, and when we are unable to be authentically ourselves when engaging with technology, we lose access to that tool. Therefore, to have a healthy relationship with technology, digital spaces must exist in which we can comfortably be ourselves."

Advice for the tech industry: "Tech companies should be transparent and clear with youth about how their platforms work and the way that data is collected and used. That

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way, youth can make more informed choices in digital spaces."

Ameen Berjis, high school student, Headstream Youth Leader

How he defines "HX": "I like to think of HX as an innovative approach to strengthening real human connections in our digital experience by building an authentic relationship with the person on the other side of the screen. We can consider what are the needs, wants and challenges of the person on the other side versus solely focusing on technical requirements. This approach goes beyond the narrower focus of traditional CX or UX and allows us to build long-lasting loyalty."

About keeping tech use healthy: "To maintain my healthy relationship with technology, I continually evaluate whether my own interactions with technology give me more energy or deplete me. This personal filter helps me understand how much time I should spend in different online spaces and what spaces work best for me. I believe we each have a purpose, and a positive relationship with technology can serve as a connector – empowering us to explore and express that purpose. Technology can also help us feel more connected to ourselves and in service to each other when we find ways to be our authentic selves in online spaces."

On adults' perceptions: "They don't necessarily understand the positive and negative impacts of tech on teens. It would benefit parents and teachers to know tech is used for all aspects of teen life. Tech is used to 'connect' us all to each other. As we are all spending more time online, we don't have many opportunities to socialize, so communicating online has become a necessity for youth and our lifeline to each other."

Emily Chan, high school student, co-founder, #GoodforMEdia

One of the examples she gave of **positive uses of technology** was "finding new interests, especially with music." She explained, "On certain music platforms, my friends and I can share songs and artists we like, and I have found some music that I would never find on my own. This also speaks to the broader capability of connected media to expand worldview. Finally, in its own way, social media allows me to home in on and discover my own identity. Because I am exposed to so many different stimuli, I am able to reflect on certain aspects of myself, whether it is politically or culturally. Speaking to the cultural aspect, digital tech has been a powerful means for me to express pride in my identity as a third-generation Asian American."

Advice for adults: "While it's easy to be scared and overwhelmed [about tech's effects], when talking to kids about these issues, it is super important to approach conversations with a constructive attitude. Instead of outright banning certain aspects of tech, make suggestions about limiting time. Most importantly, listen to the kid. Often, kids won't know the severity of what they are engaged with, and it is important to know. But the tone that adults set determines the success of setting boundaries…. I truly believe that this younger generation has the position, power, and desire to shape a future that works for us."

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Alexa Gwyn, university student, youth adviser to RALLY and the HX Team, Headstream alum

Advice to tech companies: "Social media positions our own identity as the center of the universe. As young people – especially because we are in the developmental stage where being part of the "in group" means everything to us – social media has become the epitome of our identity, the space where we can carefully cultivate our image to "fit in." To me, that's the primary issue with social media for young people. It's important that young people know that not everything you see online is real. We need to view digital spaces with a critical lens, and I think tech companies need to do the same....Tech companies need to recognize the kind of power their apps hold to shape young people all over the world. If it was their daughter, would they look closer? Would they study the human experience?"

What adults need to know about young people's use of tech: "There's a miscommunication between adults and young people, especially our parents. Adults think that our tech use as young people is much less important because we aren't answering work emails or connecting with our colleagues on LinkedIn. The other divide is that our parents never grew up with this technology; they've seen a life before the iPhone and before Instagram. We haven't. My life is so intertwined with technology that it has become my reality, whereas many parents and teachers see technology as an alternate digital space that is separate from our lives.... Technology means different things to us than it does to our parents in some ways, and that is where conversations about human experience (HX) can be helpful to bridge that divide.

Tanush Kaushik, high school student, Youth Ambassador, Telosity

How he defines "HX": "A way that people can be connected to technology and HX is much more fundamental because it's not just connected at the surface-level user interface, but deeper – because everyone is human.

About what needs to happen to improve the way we currently approach tech: "Technology use definitely needs to change so that finding access to basic needs and services need not take so long (e.g., finding restaurants, places to work, places to live), because there are many hassles from scams to inefficient websites in the way of people getting these necessities in an age where tech is all online."

Aliza Kopans, university student, co-founder of Tech(nically) Politics

On what a healthy relationship with tech looks like: "Because a healthy tech relationship is a balancing act, what it looks like is fluid and unique to the individual. As our lives change, our tech use might change as well."

Maya Nittoor, high school student, Youth Ambassador, Telosity

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About how to empower and uphold the rights of tech users: "Increasing user autonomy is crucial to empowering and upholding the rights of people using or affected by technology. Organizing technology to be used for the benefit of the community and making sure those affected by decisions in tech have a say in the matter will all make for a fairer digital world. Without directly involving people affected by technology, it becomes too easy for their rights to become neglected.

What adults need to understand: "Most parents and teachers are aware that social media has been proven to have adverse effects on youth, and understand the dangers of being a young person on the internet. However, most adults don't consider that technology can also serve as a safety net for teens: providing them with the knowledge that allows them to understand themselves and the world around them better, and connecting them with communities that offer friendship and support. For teens who are disadvantaged or dealing with difficulty, the resources technology makes available can be a lifesaver.

Harini Sridar, university student, Headstream Youth Leader

On what a healthy relationship with tech looks like: "To me, a healthy relationship with technology is not losing yourself in it, but finding yourself in it. It is the subtle balance of using it for inspiration rather than comparison. The beauty of technology today is that there is almost endless access to content that can help further your journey to becoming who you want to be and having the skills you want to have. This is, however, a double-edged sword, because there are also nearly endless unrealistic expectations, beauty standards and a lack of representation that can make anyone feel inferior to the world around them. Using technology as a resource to become your best self rather than judge and compare yourself to others seems to me like the healthiest way to interact with it."

How she'd define "HX": "HX is a concept that is finally able to isolate people's emotional response to technology specifically. It is similar to UX but refers to the entirety of a person's physical and emotional response to being in digital spaces, rather than just a user's experience on an application."

About parents' views of tech: "My parents like to attribute any problems I experience to technology. Whether it be a lack of motivation, a stomach ache or even a rash, they find some way to connect it back to "using that phone too much." What I wish they understood is that I connect with my friends, make new friends, do schoolwork, pin recipes, send memes, read articles and plan my life on that phone. There seems to be a fundamental disconnect generationally because, from my perspective, if I have the wealth of the internet at my fingertips, I want to take advantage of it as much as possible."

Is she optimistic about the future of tech? "I think the future of tech is the future of the world, and that future will make huge moves in the right direction when the industry realizes how much digital spaces impact youth. We are growing up on these platforms. It isn't just about a profit anymore, it is about empowering the next generation to make the

world a better place. Small safety issues in digital platforms can not be overlooked because these platforms are raising young people. Allowing a technological future that is known for housing hate and negativity will manifest that same hate and negativity within youth and will persist until adulthood. It isn't about "users" but children, people and real lives."

WHY YOUTH INPUT IS VITAL

We looked at four organizations in the United States that are working directly with youth on Responsible Tech – in pediatrics, mental healthcare, business, and investing. Each is listening directly to youth, with youth advisory boards, ambassadors, and peer-mentoring programs. Here's what they told us about why it's important to incorporate youth voice and participation in their work:

From SMAHRT at the University of Wisconsin:

"In order to empower or uphold the rights of adolescents and young adults, **we as experts in the field, need to recognize the limits of our own expertise,**" said Megan Moreno, MD, professor of pediatrics and head of the <u>Social Media & Adolescent Health Research Team</u> (SMAHRT) at the University of Wisconsin. "Regardless of whether one is a policy expert, a communicator or a researcher, we are still all adults and lack the lived experience that adolescents and young adults are having right now. **We've never been 16 and quarantined and using TikTok for distraction from our anxiety about a global pandemic. It is critical to include the voices of that population in our hopes, plans and assessments.** Otherwise we will design solutions that appeal to adults and miss a critical population of technology users." SMAHRT has a youth advisory board whose members advise the researchers on "the ways they use technology, the benefits and challenges of their experiences, and their ideas for making technology a better experience for them. Often these ideas are different from what we, as adults, would imagine.... Designing solutions and new approaches for youth needs to include youth to resonate with that population."

At Telosity.co of Vinaj Ventures:

The Youth Ambassadors for <u>Telosity.co</u>, which invests in companies focused on positive online experiences, digital wellness and mental health, give feedback and otherwise engage with startups in which Telosity invests. "The youth are our digital natives who have a unique perspective on technology and how it is used and experienced in their lives. They become part of a learning community focused on digital for wellbeing," said Faye Sahai, managing director of Telosity and investment services firm Vinaj Ventures. Telosity has also done national surveys involving youth to get their input and insights, finding that "<u>Gen Z is leading the charge to change society's perception and approach to mental health challenges</u>" (see their report on "<u>Investment Trend in Youth Mental Health Companies</u>"). "**It's important to work with youth to understand their needs – what is working" for them** as they "engage with their peers on digital wellness, technology" – to get their input in the development of solutions that actually work for them.

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At Stanford University's Center for Youth Mental Health & Wellbeing:

"Teens and young adults are perhaps the heaviest users of social media, but their voices are underrepresented." said Vicki Harrison, MSW, program director at Stanford University's Center for Youth Mental Health & Wellbeing, which includes the Stanford Psychiatry Media and Mental Health Initiative (MMHI). Getting youth involved in improving their online experiences is good for youth, for parents, and for the platforms, she explains. "They have developed important skills out of necessity and personal experience. They will be the most effective mentors to their peers. This encourages more impactful and relatable learning directly from one another – not by adults attempting to convey what they need to know based on adult assumptions. Through sharing their own strategies and experiences, our youth mentors have also become more media literate and passionate about counteracting the negative challenges associated with social media. **I am constantly impressed and amazed by the creative and brilliant ideas young people bring to solving problems and have no doubt that empowering more of their voices will enrich and improve our online world.**" She adds that "much of what [MMHI] advocates for is designing media that entertains, informs, and serves an audience's best interests, using the voices of lived experience to design authentic representation." For social media, that means "involving the people who engage with platforms in improving their experiences online."

In Headstream Accelerator's Collab Lab:

"For years, youth have been the drivers of social technologies, using social tech and gaming as a way to connect with their peers, trends, and society. And yet, we rarely see youth centered in how technology is being designed for their wellbeing," said Puja Butail, program manager of Headstream's Collab Lab, whose mission is to bring the transformational potential of youth co-creation to the tech builders at the largest social media and gaming companies. Headstream matches youth advisers directly with startups. "We flipped the traditional power dynamics, pairing six youth with six tech professionals working in social tech and gaming to create a movement of co-creation and the integration of how young people define their wellbeing in online spaces," Puja explains. "**When youth are empowered to act as changemakers, they become the experts and co-create experiences that support their emotional growth, social and emotional learning, and overall sense of wellbeing.**"

The Lab's research has led to the development of a series of "wellbeing principles" – such as "agency over our online experience" and "transparency and education on the impact of our tech experience" – that can serve as guides for professionals as they design more inclusive and safe spaces for their youth audiences. The team has also developed a series of co-creation pillars that, as Puja explained, "allow for authentic co-design in social technology and gaming spaces where youth don't typically have agency. This allowed us to **design for the experience instead of assumptions**. The pillars are aimed at helping companies create meaningful metrics that can dovetail with KPIs.

HX Community Interviews

Hear from a broad range of individuals from a variety of backgrounds and perspectives

(Some interviews have been lightly edited to improve consistency and readability.)

AllTechIsHuman.org | HXreport.org

Emily Chan

High School Student, #GoodforMEdia co-founder

In your opinion, what does a healthy relationship with technology look like?

In my opinion, a healthy relationship with social media is all about mindfulness and being aware of what is happening – for example, knowing when you have been scrolling for too long and recognizing when you first encounter them that certain posts (such as ones promoting extreme diets) are unhealthy and could be damaging. It is definitely really hard to get to this state of constant awareness, as social media is addictive and designed to get mindlessly sucked into. While this may sound cliché, I genuinely believe the best overall advice I

have about having a healthy relationship with social media is to know when to take breaks. Knowing when to balance digital engagement with other activities is incredibly important and key to having a healthy relationship with social media. Social media is an incredibly important part of our time, and it is not going anywhere. So it is important to embrace the positives that it brings while actively working to keep a healthy balance of it in our lives.

How would you describe your own relationship with technology?

Personally, I am always striving to follow the advice I shared above. I am using technology a lot, whether it is for schoolwork or personal use (social media, finding recipes online, watching tutorials, etc.) I always try to take breaks and am mostly successful. I will say that after I submit a huge project or finish some other big event, I have a tendency to give myself a day of just slacking off and going on social media to de-stress. However, I always find that I feel drained and strained afterwards. While I feel great in the present, in the long run I feel unproductive and unfulfilled. Despite these occasional relapses, my overall relationship with technology is positive. On social media, I am becoming more aware of the kinds of accounts I am following, prioritizing ones with positive messages. I have come to a point where I can recognize when something makes me uncomfortable online and restrict it from my Explore page. I am always trying to make it a tool for me, rather than let it consume my day and wellbeing.

Social psychology tells us negative information is "stickier" than the positive kind, and many societies are experiencing a fairly dark view of tech, so help us surface some positives – what are your top 3-5 positive uses of digital tech and connected media?

I am really interested in social psychology, so I think that this connection is super cool! I believe that it is important not only to acknowledge the very valid negatives, but celebrate the positives as well. My first positive use of digital tech is to connect with my friends. When our communities first went into lockdown in the spring of 2020, I felt more isolated than ever. I am grateful to social media for allowing me to chat with my friends, and continue to have a place to laugh and distract myself from the stressors of a global pandemic.

My second positive use of digital tech is finding new interests, especially with music. On certain music platforms, my friends and I can share songs and artists we like, and I have found some music that I would never find on my own. This also speaks to the broader capability of connected media to expand worldview. Finally, in its own way, social media allows me to home in on and discover my own identity. Because I am exposed to so many different stimuli, I am able to reflect on certain aspects of myself, whether it is politically or culturally. Speaking to the cultural aspect, digital

tech has been a powerful means for me to express pride in my identity as a third-generation Asian American. I can listen to songs, learn recipes, and find community with people on the internet with a similar cultural heritage, which is an invaluable form of connection.

Do the parents and teachers in your life generally understand how you use tech and, if not, what would you tell them they need to know about it?

I would say that the parents and teachers in my life are learning at the same time as me (my mom got Instagram and Snapchat at the same time I did). However, the digital worlds that my adults and I live in are super different. I would say that they need to first accept that social media is not going anywhere, and its presence is only going to expand. There are valid dangers, such as misinformation, harmful messages about body image, and predatory behavior.

While it's easy to be scared and overwhelmed, when talking to kids about these issues, it is super important to approach conversations with a constructive attitude. Instead of outright banning certain aspects of tech, make suggestions about limiting time. Most importantly, listen to the kid. Often, kids won't know the severity of what they are engaged with, and it is important to know. But the tone that adults set determines the success of setting boundaries. Not to plug, but the rest of the #GoodforMEdia team and I recently wrote a parent guide for social media, where we highlighted what else parents should be aware of. It definitely is important to bridge this gap in knowledge about digital media for adults and teens.

What makes you optimistic that we, as a society, can build a tech future aligned with our human values?

I am optimistic that our society can build a tech future aligned with our human values. More and more, younger generations who are growing up in a digital age are advocating for healthier social media practices. People are realizing their unhealthy habits, and the damages that come with certain tech usage. When I see more and more accounts promoting positive body image, celebrating connection, or combating misinformation, on my social media, I am reassured that this movement is only just beginning. I truly believe that this younger generation has the position, power, and desire to shape a future that works for us.

"I truly believe that this younger generation has the position, power, and desire to shape a future that works for us."

-Emily Chan, High school student, #GoodforMEdia co-founder

Sahar Massachi

Co-founder and ED, Integrity Institute

Tell us about your current role:

I run the Integrity Institute. We are a think tank powered by a community of integrity professionals: tech workers who have on-platform experience mitigating the harms that can occur on or be caused by the social internet.

We formed the Integrity Institute to advance the theory and practice of protecting the social internet. We believe in a social internet that helps individuals, societies, and democracies thrive.

We know the systemic causes of problems on the social internet and how to build platforms that mitigate or avoid them. We confronted issues such as misinformation, hate speech, election interference, and many more from the inside. We have seen successful and unsuccessful attempted solutions.

Our community supports the public, policymakers, academics, journalists, and technology companies themselves as they try to understand best practices and solutions to the challenges posed by social media.

In your opinion, what does a healthy relationship with technology look like?

Technology is a funny old word. We've been living with technology for thousands of years. Technology isn't new; only its manifestation is. What did a healthy relationship to technology look like 50 years ago? 200 years ago?

Writing is a form of technology. Companies are a form of technology. Government is a form of technology. They're all inventions we created to help humankind. They are marvelously constructive tools that unleash a lot of power, and a lot of potential to alleviate human suffering. Yet, in the wrong hands, they can do correspondingly more damage.

Technology should help individuals, societies, and democracy thrive. But it is a truism to say that technology should serve us, not the other way around. So let's get a little bit more specific.

A healthy relationship to technology looks like a healthy relationship with powerful people. People, after all, own or control technology. Are they using it for social welfare? Are they using it democratically? Are they using it responsibly? Are they increasing human freedom, or diminishing it?

We will always have technology. Machines and humankind have always coexisted. The real danger is in other *humans* using those machines for evil (or neglect). Let's not forget.

What individuals are doing inspiring work toward improving our tech future?

If we lived in a better world, Aaron Swartz would no doubt be on top of my list. Never forget.

If one person's free speech is another's harm and content moderation can never be perfect, what will it take to optimize human and algorithmic content moderation for tech users as well as policymakers? What steps are needed for optimal content moderation?

Well, first off, let's not assume that content moderation is the best tool, here. All communications systems, even ones that have no ranking systems or recommendation algorithms, make implicit or explicit choices about affordances. That is, some behavior is rewarded, and some isn't. Those choices are embedded in code and design. Things

Continued on next page

like: "How often can you post before it's considered spam?" or "Can you direct-message people you haven't met?" or "is there a reshare button?"

Default social platforms have those settings tuned to maximize engagement and growth -- at the expense of quality. Sadly, it turns out, content that has high engagement tends to be, well, bad. The builders of those platforms chose to reward the wrong behavior, and so the wrong behavior runs rampant.

Fixing this can be done through technical tweaks. Things like feature limits, dampers to virality, and so on. But companies must set up internal systems so that engineers that make those changes are rewarded, not punished. If the companies that run platforms changed their internal incentive structures, then many of these problems would go away -- before any content moderation would be needed.

We'll always need some content moderators. But they should be a last resort, not a first line of defense.

How can we share information and best practices so that smaller platforms and startups can create ethical and human-centered systems at the design stage?

Thanks for this softball question! I think we're doing that pretty well over at the Integrity Institute. We are a home for integrity professionals at all companies. Our first, biggest, and forever project has been building the community of people like us. In that community, people can swap tips, help each other learn best practices, and learn in a safe environment.

Drawing from that community, we brief startups, platforms, and other stakeholders on the emerging knowledge coming out of that community. We're defining a new field, and it's quite exciting.

Going more abstract, however, I think the problem is also one of defaults and larger systems. How easy is it for a startup to choose ethics over particularly egregious profits? How long will that startup survive (and how long will the CEO stay in charge)? The same goes for larger companies, of course.

Imagine a world where doing the right thing gets your company out-competed, or you personally fired. Pretty bleak, huh?

We're trying to fix that, in part by enforcing an integrity Hippocratic oath. This would be a professional oath that all integrity workers swear by -- to put the public interest first, to tell the truth, and more. But that's only one small piece of the puzzle.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

In 1649, the people of England put their king on trial, found him guilty of "unlimited and tyrannical power," and cut off his head. I imagine this came as quite a shock to him. More interestingly, perhaps, I imagine that it came as a shock to the people themselves.

In extraordinary times, people -- human beings -- can come together to do things that seemed impossible, unthinkable, even sacrilegious just a few days before.

Within living memory in this country, schoolchildren were drilled to dive under desks due to threats of global nuclear Armageddon. Things must have seemed terrible. Yet, those children grew up, bore children, and made a gamble that the future would indeed be worth passing on to them. I think they were right.

We live in interesting times. That's not necessarily a great thing: boring, stable, peaceful times have a lot going for them. It doesn't seem like we have much of a choice, though. In interesting times, conditions can change quickly. Old ideas are shown to be hollow and toothless. Old institutions are exposed as rotten. The new world struggles to be born.

I look around and I see immense possibilities all around me. It could go very badly. We could absolutely come out of this worse than we came in. Anyone -- any future -- can come out on top. So, why not us? Why not team human?

Joi Rae

Head of Operations and Partnerships at New_ Public

Tell us about your current role:

I serve as the Head of Operations and Partnerships at New_ Public. We are an organization on a mission to incubate pro-democracy social tech. I'm helping to lay the groundwork for our organizational infrastructure as a startup, building our networks, and engaging stakeholders who also feel urgency around creating better ways for people to engage digitally.

In your opinion, what does a healthy relationship with technology look like?

Creating a healthy relationship with technology starts with the designers and engineers who are making it. They have a responsibility to create balance and ensure the wellbeing of their platform's users. Creators must be thoughtful about minimizing the ways that digital technologies can be made more addictive, extractive, and make people vulnerable to online harm or abuse. It is from this starting point that individuals can be best positioned to negotiate what a healthy relationship with technology is for themselves.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

HX is a way of designing and engineering that approaches the creation of digital tools and platforms in service of people's wants and needs. Over time, it also means measuring and tracking what's good for people instead of focusing on abstract users and profitability. This stands in contrast to many of the largest tech platforms we have that are optimized to maximize profits often to the detriment of the people who use them.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

Through research and interviews with thousands of respondents from around the globe, New_ Public mapped out 14 attributes of healthy digital public spaces in a body of work we call the Signals. They provide a framework to guide how we should approach building digital technologies and are organized into four building blocks: welcome, understand, connect, and act. Signals include showing reliable information, guaranteeing users a safe experience, and encouraging the humanization of others. Some of these may seem obvious, but they are too often deprioritized or ignored by platforms in order to maximize products, features, and design that contribute to the bottom line. We need to build flourishing digital public spaces where everyone can safely work, play and exist online.

What has been your journey into the Responsible Tech movement and HX?

I have worked in many sectors but come from a career primarily in local government and proudly consider myself a public servant. I see a lot of similarities in the power and importance that digital public spaces have in our lives to that of government and public policy. I understand that technology is a tool and that not all problems can or should be solved with the right code. However, the scale and importance of technology in our everyday lives cannot be ignored and should not be underestimated. I come to the Responsible Tech movement with a sharp understanding of why integrity and public interest need to be at the center of decision-making.

How would you describe your own relationship with technology?

I grew up with at least one computer at home since I was a kid. I went to an experimental high school that gave everyone laptops and I've never been without a personal computer since. My relationship with technology is always evolving. I continue to negotiate the right balance of being online and available alongside unplugging and avoiding oversharing. As I learn more about tech companies and how they operate, I use that information and my intuition to adjust the way I approach technology and especially social media. I try to be honest with myself about the boundaries I need to establish, adjust, and reassert to determine what healthy tech usage looks like for me.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

Unfortunately, many social media platforms do prioritize profit over people. They have continuously demonstrated this with their policy decisions. A lack of transparency can muddy the waters, but investigative journalists and ex-employees have done tremendous work in proving that platforms are incentivized to maximize engagement over safety, equity, and democracy. In order for this to change, platforms need to make difficult decisions and prioritize the removal of toxic content and interactions. They must seek early and frequent input from people and communities closest to these problems as well.

For example, at New_ Public we are bringing people with diverse backgrounds and skill sets together to prototype digital products that will provide solutions to real life problems and address community needs around four issue areas. One of the areas of focus is around improving connections and communication among parent and caregiver communities supporting students in K-12 schools. We'll work with students, parents and guardians, principals, school board members, and other experts to provide input on the development of a product prototype. The primary focus guiding the creation of the final product will be its usefulness to parent and caregiver communities.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

My ideal tech future looks a lot like the building blocks identified in our Signals research. Where everyone feels invited to participate, people can express themselves without compromising their identity and data, and digital spaces strengthen local communities, and more. Some of these changes could happen with just small tweaks to algorithms or user interfaces. Others will necessitate a whole realignment of the incentives that most major platforms currently optimize for.

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

At New_ Public we are deeply committed to marrying lived expertise with tech and design knowhow at the prototyping stage for new technologies. Folks who are impacted by technology, but who often don't get a seat at the table at any stage of the tech creation process, need to be brought in early and often. Solutions need to come from listening directly to the folks affected by the problems that tech claims to solve.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

I love stories about supportive communities that form in digital spaces for folks with all kinds of health conditions who go to the internet for information and support. People have found relief from debilitating symptoms, information that improves their quality of care, and compassionate fellow travelers digitally. Similarly, during the pandemic, tech has been essential for supporting and expanding the reach of life-saving support and mutual aid efforts. I also don't want to overlook the joy, fun, and opportunity that tech brings into people's everyday lives. From entertaining content to providing small creators and businesses with broader platforms and reach, tech does so much good in the world.

How do we empower and uphold the rights of people using or affected by technology? Are there both individual and collective inputs and, if so, what are they?

People using and affected by technology need to be involved at the earliest possible stages of creating it. For existing technologies, companies and platforms need to seek out and listen to users providing feedback in order to make adjustments that serve the public good even if doing so impacts their bottom line. There's a range of design frameworks and practices that should be considered, from calm technology to design justice.

What organizations are doing valuable work toward improving our tech future which you admire?

EFF, Integrity Institute, and the techno-optimists at Reboot.

What individuals are doing inspiring work toward improving our tech future?

There are so many. Timnit Gebru, Ethan Zuckerman, and the countless unknown folks who are contributing to open source projects and design frameworks that seek to improve the internet in ways we haven't seen yet.

What needs to be done, added and/or eliminated to foster cultures that value human capital amid the growing use and impact of technology?innovation in responsible tech to shape a better, more equitable HX for all? How do we (all of us, across all sectors) make it so that technology serves people and humanity?

Tech can facilitate enormous good and enormous harm. This is especially true for big social platforms. They are so powerful, and serve billions of users. It is imperative for them to operate in the public interest. However, since they often do not, we desperately also need digital spaces that cater to the public good. Platforms that offer healthy alternatives, protect people's information, and foster welcoming communities need to be built in partnership with affected communities and people with lived expertise.

How can we better use technology to "augment" human intelligence without jeopardizing livelihoods/employment?

All technology comes with tradeoffs. The internet and social media are really new in the grand scheme of things, but they have quickly become enmeshed with how we live, work, and play. But as we continue to automate and train machine learning models, it's important that we lead with our values. In borrowing from calm technology, let's have computers do what they're best at, without sacrificing more than we need to.

How can we design business models that profit by prioritizing humanity?

At New_ Public, we take inspiration from the way that library systems were funded in America over time. Early on, libraries in the U.S. were mostly privately owned by wealthy individuals or schools. Eventually a New York law made school libraries available to neighbors. As other localities adopted similar laws and government investment in libraries increased across the country, major donors like Andrew Carnegie began contributing their own wealth to the effort. Moving forward, tech companies that have amassed incredible wealth, sometimes at the expense of the public interest, have a responsibility to contribute positively. Government and philanthropy also have a role to play in supporting and advancing tech in the public interest.

How can we share information and best practices so that smaller platforms and startups can create ethical and human-centered systems at the design stage?

I think doing this requires some of the actions I've already mentioned like bringing people with lived experience into the tech design process and generally operating in the public interest. However, the other important part of this work is just the simple and inescapable grunt work of grassroots movement building. As the COVID-19 pandemic has shown us, tech is integral to the functioning of society. We need to communicate and build networks across all sectors and at all levels to break down the silos that exist in tech and develop solutions that actually serve people.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

In a recent newsletter, our magazine editor, Wilfred Chan, gave a heartfelt explanation of why fiction is essential to tech discourse. What it boils down to is: technology can never replace the human imagination. As important and ubiquitous as tech is in many of our lives, our experience is shaped by the decisions and actions made by people. It's a reminder that is as empowering as it is sobering. Tech is created by people. It's created by us. As long as we can imagine a better tech future, we can certainly build it.

> "[T]echnology can never replace the human imagination. As important and ubiquitous as tech is in many of our lives, our experience is shaped by the decisions and actions made by people. It's a reminder that is as empowering as it is sobering. Tech is created by people. It's created by us. As long as we can imagine a better tech future, we can certainly build it."
>
> **-Joi Rae, Head of Operations and Partnerships at New_ Public**

Ameen Berjis

High School Student, Headstream Youth Leader

Tell us about your current personal and academic interests:

From the pandemic, I learned that despite the hardships we have faced, humanity is more interconnected than we could have ever imagined. We each have the opportunity to make a difference. I am passionate about making a global impact and uplifting humanity by allowing each person to recognize their purpose and potential. I began exploring the impact I wanted to make by creating a digital space to encourage teen wellbeing through an app called inspyre (inspyre.xyz). How can I show each person they matter? My app aims to empower youth and help them cope with the stress in their personal lives through inspiration and mentorship. This space reminds youth about their potential in life and helps them see their own capacity. Academically, I am really interested in math and science. I am inspired by the intersection of the sciences with human behavior.

In your opinion, what does a healthy relationship with technology look like?

In my opinion, a healthy relationship with technology involves awareness, education, and a healthy balance. When we understand the benefits and dangers of technology, we do not let technology disconnect us from . ourselves, our connections, and what matters most to us. From my own experience, understanding the mental, emotional, and physical risks of being consumed by technology was helpful in finding my own healthy relationship with it.

To maintain my healthy relationship with technology, I continually evaluate whether my own interactions with technology give me more energy or deplete me. This personal filter helps me understand how much time I should spend in different online spaces and what spaces work best for me. I believe we each have a purpose, and a positive relationship with technology can serve as a connector – empowering us to explore and express that purpose. Technology can also help us feel more connected to ourselves and in service to each other when we find ways to be our authentic selves in online spaces.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

I like to think of HX as an innovative approach to strengthening real human connections in our digital experience by building an authentic relationship with the person on the other side of the screen. We can consider what are the needs, wants and challenges of the person on the other side versus solely focusing on technical requirements. This approach goes beyond the narrower focus of traditional CX or UX and allows us to build long-lasting loyalty.

As we collectively focus more on human experience, we can build better human experiences and consider greater alignment between profits and societal wellbeing.

For HX, I first ask myself, what do people need? Considering real emotions is an important part of this question. From my perspective, we all crave authentic connections and we want to feel heard, seen and we are enough. Our diverse backgrounds, life experiences and perspectives are invaluable and should be accounted for in designing technology and improving our relationship with it. When we truly understand the person on the other side of the technology holistically, we have the opportunity to inspire them.

If what many people believe is true and

social media needs to be better for young people, how would you advise tech companies to make it better for you and other people around your age?

I believe the first step tech companies can take to make social media better for us is by understanding the needs, challenges, pain points and wants of youth through authentic two-way dialogue. What is it like to be a youth at this time in history? What do we think about? What are we worried about? How do we feel when we are on various social media spaces? Building a holistic understanding can help tech companies build a bridge of trust between us by improving digital experiences.

Do the parents and teachers in your life generally understand how you use tech and, if not, what would you tell them they need to know about it?

The parents and teachers in my life have a general idea of how I use tech, but they don't necessarily understand the positive and negative impacts of tech on teens. It would benefit parents and teachers to know tech is used for all aspects of teen life. Tech is used to "connect" us all to each other. As we are all spending more time online, we don't have many opportunities to socialize, so communicating online has become a necessity for youth and our lifeline to each other.

What makes you optimistic that we, as a society, can build a tech future aligned with our human values?

I am optimistic that as a society we can build a tech future aligned with our human values. Up until this point, the role of tech in society has not been well defined beyond profits. This gives us a unique opportunity to join together to define a tech landscape that considers profits AND is aligned with our human values. I believe the first step will be to define and agree upon what our collective human values consist of. We then can invite teens, parents and tech companies to join us in upholding these values. Some initial questions to consider in defining our human values: Do we believe that we are all equal? Do we believe that we are all interconnected? Do we believe we can make the world a better place? Do we believe that we all deserve opportunity? Do we believe that we can consider our human needs and profits together? Answering these essential questions can define the future of tech.

> "I like to think of HX as an innovative approach to strengthening real human connections in our digital experience by building an authentic relationship with the person on the other side of the screen. We can consider what are the needs, wants and challenges of the person on the other side versus solely focusing on technical requirements."
>
> **-Ameen Berjis, High School Student, Headstream Youth Leader**

Maria Bridge

Chief Communications Officer, Center for Humane Technology

Tell us about your role:

I oversee communications at Center for Humane Technology (CHT). Practically, that means guiding our podcast, Your Undivided Attention, co-writing our biweekly newsletter, managing our PR and media, and building out humanetech.com and our YouTube channel with meaningful resources. I am super grateful to work alongside our small but mighty Comms team, which makes all of these things possible!

In your opinion, what does a healthy relationship with technology look like?

For me, it's much more what it feels like. When using technology feels restorative, connecting, energizing, and humane, it's healthy and additive to my life. When it feels draining, depleting, anxiety creating, or even just numbing — those are signals for me to step back and make adjustments.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

If UI is how it looks, UX is how it works, HX may be how it feels and influences — in an interconnected way.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

Education, new expectations, and shared language. We need as many people as possible to understand that technology is not neutral — and then we need to develop the capacity of those working in technology to develop tech with empathy, care, and wisdom. And we need everyone to demand new business models and operating paradigms for technology that nurtures more humane technology.

The need for education and new language is why CHT developed a free, 8 module course Foundations of Humane Technology for anyone working in technology. Learn more at humanetech.com/course.

What has been your journey into the Responsible Tech movement and HX?

Meditation was the catalyst. I started meditating in 2013 out of a desperate desire to address growing mental anxiety. As my practice matured, and especially as I started doing longer silent retreats in 2017, meditation illuminated the operating system of my mind. I began to understand how sensitive our minds are to sensory input (including technology), and how much our sensory input actually changes our mental operating system.

When I understood this more fully, it honestly freaked me out how much influence technology has over our thoughts, perceptions, and actions at imperceivable levels — by way of its content, algorithms, apps, devices, and operating models.

That got me inspired to make a career switch and do whatever I could to raise awareness of these mechanisms and make technology more ethical.

How would you describe your own relationship with technology?

Evolving. I went through a period of very low tech usage — not consuming the news, avoiding all social media, often going without my phone.

But eventually I felt a desire to re-engage with the world through technology more,

Continued on next page

n order to respond to the challenges it creates. So I've been back on social media (mainly for work), and follow the news much more.

It's a balancing act, because I directly perceive how interacting with social media, email, Slack, even just being on Google changes my attention span. But right now it's important to me to engage thoughtfully, as best I can.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

Of course not every social media platform, but typically, yes, social media platforms prioritize profit over people. It's an outcome of a broken business model that profits off of our attention (primarily through ads), that incentivizes platforms to design products that capture more and more of our attention — even if it's depleting or downright harmful.

Without fundamentally changing the business model, we just get slightly less bad social media that doesn't address root cause issues. To really change things, we need values-driven leadership and values-driven changes to the business model — in coordination with all of the other solutions we're all working on.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

It's a future where the predominant technology we interact with fulfills the 6 tenets of humane technology:

1. Allows us to reach our highest potential by respecting – rather than exploiting – human nature
2. Accounts for and minimizes unintended consequences
3. Prioritizes human experiences and values over metrics
4. Narrows gaps of inequity by addressing systems that perpetuate it
5. Builds shared understanding
6. Helps people make wise choices and thrive

To make this happen we need a cultural paradigm shift. That requires those of us who believe in the power and necessity of humane technology to start operating from those principles and advocating for change.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

I believe in the power of operating in alignment with our own values — in ways big and small — to have marvelous, unforeseeable, positive ripple effects.

> "We need as many people as possible to understand that technology is not neutral — and then we need to develop the capacity of those working in technology to develop tech with empathy, care, and wisdom."
>
> **-Maria Bridge, Chief Communications Officer, Center for Humane Technology**

Tami Bhaumik

Vice President, Civility & Partnerships at Roblox

Tell us about your role:

I am the Vice President of Civility and Partnerships at Roblox, where I spearhead the platform's Civility initiative and work to foster a global community of internet safety leaders to ensure good digital citizenship on Roblox. To establish a healthy and safe community, our Civility initiative is focused on providing kids, teens, parents, and caregivers with the skills necessary to create positive online experiences in partnership with the world's leading safety and industry organizations. At Roblox, our vision is to connect people with different life experiences with new and interesting ideas. We believe that these connections will help build empathy by safely immersing people with different perspectives and diverse viewpoints in a safe and respectful environment. We're optimistic that Roblox can help increase the civility of people around the world, connecting people through shared experiences.

In your opinion, what does a healthy relationship with technology look like?

A healthy relationship with technology is all about self-awareness and self-governing to achieve a healthy balance of usage. The more digital education that we can offer people of all ages starting from the moment they engage with any sort of technology gives us the best opportunity to create a more positive and confident world. Technology should augment human life, not replace it. There is no one-size-fits-all scenario when it comes to developing the definition for a healthy relationship with technology, since the usage scenario is different for every person and at different stages of life. There are so many positive and productive uses of technology, including social media, that it comes down to building the muscle at an early age that provides the awareness needed to create healthy habits.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Humans are entering into a very different phase of existence that will increasingly integrate technology in every aspect of their lives – work, play, entertainment, etc. Two years into the pandemic, we are witnessing how technology has fundamentally changed the way people interact with one another. It's literally been a lifeline for work and personal connections, for running economies and businesses. The virtual aspect of shared connections will only accelerate as technology continues to evolve, creating higher quality experiences and further removing friction to access anything from anywhere. I believe that the definition of Human Experience is a confluence of interactions that encompasses real life with technology – augmenting and complementing shared human experiences.

What has been your journey into the Responsible Tech movement and HX?

After being a part of the Roblox journey for over 5 years and seeing the excitement and user growth on the platform, it was obvious to me that we had an opportunity and responsibility to educate the whole community to create positive experiences for themselves, not only on Roblox but online in general. So many parents are fearful of technology and have no idea what their kids are doing online. This must change, and we need to educate parents so that they can help raise strong, confident, savvy humans that have the "spidey sense" to keep themselves safe. Kids and teens can learn to position themselves where they reduce negative experiences, and have the tools and knowledge to know what to do in the event they come across a bad

actor or dangerous or questionable content. I believe that digital education is a core component in helping to create a healthy and positive future for all humans, but especially this next generation.

How would you describe your own relationship with technology?

Growing up in Silicon Valley, I have been exposed to technology my whole life, so it's very much a part of my DNA. I've always been insanely curious about new technology that sets out to change the world and is mission-focused. As such, it's easy for me to get hyper-focused on engaging in tech products, and I can easily lose myself in it for hours. Over time, I've developed an awareness of the balance necessary for me to thrive mentally and set limits and breaks to start forming a healthy relationship with technology so that it does not consume me. This is an ongoing journey of evolution, but I'm optimistic that awareness and governance over my usage of technology will help me to use technology as it was intended – to enhance my life.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

My ideal tech future would be a time and place where everyone has access to the same tools and technology so that information access and shared experiences are ubiquitous. This is why I'm so excited about the recently announced Roblox Community Fund with this exact mission for education. This future would mean humans have the digital savvy and education to use the safeguards and tools to have positive experiences, create them for others, and feel confident doing so. I believe in a future where digital media education is a required school course that's integrated into the core curriculum. Technology companies will need to continue to innovate to create systems that promote safe and civil environments as a forethought and priority. The most important area of opportunity is to create evidence-based research that negates the misinformation and sensationalism that currently exists and is driving legislation and policy that may create unintended negative consequences.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

The silver lining of the pandemic has highlighted the lifeline that technology has provided to all humans. I have seen firsthand through our community at Roblox how the platform has provided much-needed connections to family and friends, distance learning, and creative outlets to support mental health and well-being:

1) Shared Connections: Digital tech has provided a lifeline of support connecting people with one another, whether it be for work, play, school, or social connections.

2) Creative expression: The platforms and tools available to people have allowed them to create experiences in the form of immersive content and digital worlds, digital merchandise, music, fashion, and art, and opened up new ways to share and amplify their creations to the world unlike never before.

3) Bringing the world together: Technology has helped humans eliminate borders and the constraints of distance and has helped create friendships, mutual understanding, and appreciation for different cultures and ways of living.

4) More innovation: People can find others who have the same mission and expertise no matter where they live in the world. Platforms, like Roblox, have offered opportunities for entrepreneurship, skill building, and access to people with expertise to help round out startups to build new products and businesses. This has enabled continued innovation that touches all industries.

> "I believe in a future where digital media education is a required school course that's integrated into the core curriculum. "
>
> **-Tami Bhaumik, Vice President, Civility & Partnerships at Roblox**

Michael Preston

Executive Director, Joan Ganz Cooney Center at Sesame Workshop

Tell us about your role:

I'm the Executive Director of the Joan Ganz Cooney Center at Sesame Workshop, a research and innovation lab that works to advance children's learning and wellbeing in the digital age. We seek to guide innovation to prioritize the best interest of kids by mobilizing research from the learning sciences, advocating for child-centric design practices, and building community among researchers, practitioners, industry, policymakers, and philanthropists who share the goal of ensuring that kids' experiences with technology help them grow smarter, stronger, and kinder.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

I see HX as the state in which people understand their own wellbeing and are empowered by technology to attain it.

What has been your journey into the Responsible Tech movement and HX?

I was one of those Bell Labs kids who grew up with a computer in the house, back in the early days of PCs when all you could really do was program them. Fast forward many years to my first "real" job in education: the internet was arriving in K-12 schools across the country,

which started me on a path to discover how technology could be used to improve learning in transformational ways, beyond simply digitizing everything – particularly ways that empowered students via better tools for creativity and thinking. One of those empowering movements was "computer science for all," which I helped start in NYC public schools and later supported nationally. We worked closely with educators, curriculum designers, and technologists to make sure that kids understood not only how technology worked but also their own ability and agency to make it reflect themselves. This work led me into responsible tech because a key tenet is it's for everyone, not just a privileged few (i.e., Bell Labs kids), and because technology should serve the best interests of diverse individuals and communities. We can't achieve that without everyone's participation.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

If you ask young people, they will tell you about all sorts of positive uses of technology, sometimes despite the technology. I think one advantage they have is their innate curiosity – reflected in the fact that they spend a good deal of "screen time" engaged in activities that could be broadly considered educational, even if they don't necessarily think about it that way. The popularity of how-to videos on YouTube and TikTok is one example, or deep dives into esoteric subjects that are uniquely available to this generation. Another example is kids' use of social and messaging platforms like Discord to hone their interest-based identities across a wide variety of contexts. A third example is how kids find ways to meet their social needs while subverting the data-hungry designs of big tech providers, which my colleague Mary Madden wrote about for New_ Public Magazine, e.g., by decentralizing their use of platforms, adopting different identities, separating their social circles, and tightly managing private vs. public information. I also look for examples in how the public media community thoughtfully engages young people by giving them control of their platforms,

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creating media together, and designing content for young people on the topics that they ask for, e.g., mental health or careers.

How can we design business models that profit by prioritizing humanity?

I don't think we are that far away from this concept. We already have benefit corporations and "double bottom line" models that enable companies to widen their circle of concern to include social and environmental impacts, operating with transparency, and choosing to be accountable to a broader notion of stakeholders. The challenge is ensuring that more companies can translate human-centered values into indicators of the overall health and success of their business. As the world becomes increasingly digital, tech companies will become increasingly responsible for designing healthy and safe environments for people, who will also become more educated about these impacts and develop loyalties accordingly.

"As the world becomes increasingly digital, tech companies will become increasingly responsible for designing healthy and safe environments for people, who will also become more educated about these impacts and develop loyalties accordingly."

-Michael Preston, Executive Director, Joan Ganz Cooney Center at Sesame Workshop

Atulya Chaganty

Multidisciplinary Designer

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

The term HX may be fairly new, but the concept of understanding the relationship between humans and technology on an individual or societal level is age-old. The difference, now, is that what we define as technology has vastly evolved. In just one generation, we have gone from digital alarm clocks and pocket radios to a metaverse. For me, HX isn't about the medium or outcome of the technology – we have had a variety of technologies in entertainment, medicine, transportation, industrial manufacturing, etc. – it is about understanding what purpose these interactions have and who they are serving. Examining HX through a singular lens will lead to the same pitfalls any other field has. It is critical that the approach to examining and designing the relationship between technology and humans to implement and endorse ethical practices is systematic, has dimensionality, and is interdisciplinary.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

Humans are users and most of the time users are humans, so it's not so much a vocabulary change as much as a contextual and systematic approach that needs to happen. Technology is not a distraction from reality or a hope to hang our hat on, it is fundamentally political, and we have to consider the role it plays in our contexts, from climate change, to healthcare, to elections, governments, access to information, and so forth.

While technology is still a tool and an inanimate state, it wields a power that we have not ordained to any other singular entity. We must consider how to shift our understanding not from user to human needs but rather redefine the power technology has and the role it plays in our society. For us to achieve a healthy, safe, and equitable society we must find ways to regulate technology so humans dictate the capacity of technology and technology does not enforce human behavior.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

I hope for a future where technology is invisible. This is not to say that we should live in societies without tech or ones that integrate tech into everything. I hope for a future where technology plays the role of taking on repetitive, or large-scale, or dangerous, or mundane tasks that need to be done but do not need to jeopardize humans to do so. I hope our tech future works to deconstruct capitalism and creates equitable distribution to food, health, and joy to everyone.

Without enforced ethical boundaries around machine learning and AI, it is imperative to use technology as a tool, not as a decision maker. Roles where critical thinking is crucial, and imagination and creativity are fundamental, that's where humans must be central. I also hope that our future is not screen dependent. Many live in a spectrum where screens are inaccessible and do not serve the same experience.

To live harmoniously with technology, we should think about how it can enhance the systems that support humanity. We have used technology to solve adjacent inconveniences or a singular issue but not thought of how these inventions create new and future problems. We have arrived at this issue because we have been so focused on a few humans;

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instead, we need to shift to where the interconnected relationships of the human experience are elevated. If we want to focus on the human experience, we must focus on our environmental behaviors and how to reduce harm.

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

Systems, systems, systems. Everything works in a system and those systems overlap and live in bigger systems that live in bigger systems that are all interconnected. I believe Mufasa put it far more eloquently when he said, "Everything you see" [and don't] "exists together in a delicate balance…you need to understand that balance and respect all….we are all connected in the great Circle of Life."

Newton's law is amplified in these systems, not only does every action have an equal and opposite reaction, but they also have a connected series of ripples and micro actions. We cannot think, problem explore, or design by focusing in one direction. Everything exists in a context, and it is critical to incorporate those contexts into the process. It's like that childhood song,
And the bird in the egg
And the egg in the nest
And the nest on the branch
And the branch on the tree
And the tree in the hole
And the hole in the ground
And the green grass grows all around all around
And the green grass grows all around

You have to be able to zoom in to the details as well as see the whole picture and how they are all related to one another. We can no longer not account for "unintended consequences" instead we must consider them alongside our baked in biases and remember that because we can make something doesn't mean we should or that people will use it in a singular optimal way.

Any additional comments?

I recognize many of my opinions are rather contrarian, and I probably didn't answer any of the questions directly, but these topics are incredibly large and complex, especially when we are talking about them as a whole rather than specific to an instance. The more I work in the world of technology, primarily in the digital sector, the more connected it all feels, especially when it comes to how to effect change.

What I have learnt is that digital product creation is not equal. Not everyone has access to the same information, same resources, or even the same level of talent to help build their products. Many companies have a specific audience but when your service has to serve everyone, like if you are the government or a nonprofit, a large part of your audience might be tech illiterate or not have access to the best mediums to use your services. You must think about digital accessibility and how to turn a really big ship with a really small budget and a lot of push back. Trust can be inbuilt because of consistency or ownership and change can be incredibly hard, yet there are so many ways to incorporate more people. So many ways to include more voices, more expertise, more ideas, more context, more information, just more all around. We don't have to get it all perfect on the first try but we must keep trying to get it right and not accept that what it is, is what it has to be. This is the responsibility of all of whom work in these contexts.

We cannot keep relying on the next generation to waste their youth solving problems generations before them have created. We must hold governments and large corporations accountable through diverse ways from participation, integration, and even repercussions. We are on a precipice of opportunity to write the future of technology in any way we want and therefore it is our duty to do so ethically, respectfully, and soulfully.

> "We are on a precipice of opportunity to write the future of technology in any way we want and therefore it is our duty to do so ethically, respectfully, and soulfully."
>
> **-Atulya Chaganty, Multidisciplinary Designer**

Tanush Kaushik

High School Student, Youth Ambassador, Telosity
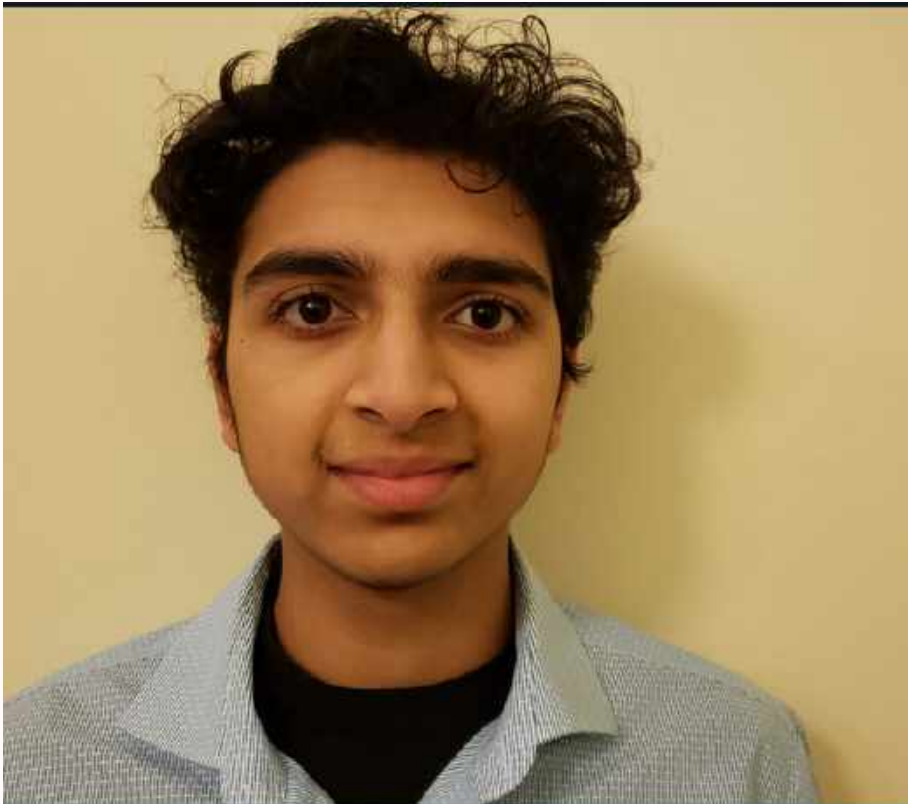
Tell us about your current personal and academic interests:

My personal interests include going on walks with family, and I especially enjoy spending time with my sisters and parents. Driving to a small café as a routine trip once a month with the whole family is something I've done since childhood. Academically, the wide variety of school subjects heavily interests me. I do generally quite well in school because learning as a whole is what interests me, and there's no particular detestment I have for a particular class.

In your opinion, what does a healthy relationship with technology look like?

A healthy relationship with technology consists of a maximum use of 4 hours a day where someone is actively looking at a screen. It consists of very minimal texting online but rather phone calls and more event-making "group-chats," so that people aren't absorbed on their phones all the time. A healthy relationship with technology doesn't have levels of serotonin that bring us back to video games or to something addicting. A healthy relationship is where people can enjoy a lot on tech but have good restrictions set in place.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

HX is a concept that is understood not to communicate with users and make users have an efficient time with using technology, but rather humans. HX is a way that people can be connected to technology and HX is much more fundamental because it's not just connected at the surface-level user interface, but deeper – because everyone is human.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

Technology use definitely needs to change so that finding access to basic needs and services need not take so long (e.g., finding restaurants, places to work, places to live), because there are many hassles from scams to inefficient websites in the way of people getting these necessities in an age where tech is all online.

What do you think of when you hear the terms "Responsible Tech" and "HX"?

These strike more personal and emotional/mental words for me, because technology needs to work with humans in a way that's responsible, caring, and regards human safety. This can strike me as healthcare and its intersection with technology, or technology and how we can keep ourselves safe on the internet, especially with scammers, and the lack of protection for people on the internet from dangerous and inappropriate things.

How would you describe your own relationship with technology?

To be honest, technology has taken a huge toll in my own life because I've used technology so much more now that school has been remote and that assignments are online. Additionally, my social life has gone aloof and has resorted to message groupchats. As a result, it's so easy for me to be easily addicted to technology, spending 14 hours a day on a screen, which is super bad for me because that's 6 hours of my school day and another 6-8 hours at home.

What does your ideal tech future look like and what needs to happen in order

to make that future a reality?

An ideal tech future consists of four-or-so different spheres – localized social media so people can connect with their own communities, done by removing the toxicity of following celebrities, of following a lifestyle that one wishes to have and thus become depressed because of that. A database for all kinds of information, done by collecting what Google already has on sites like Medium, Encyclopedia, etc., and a crowd-source for brilliant knowledge on a variety of subjects. Lastly, it should have messaging systems with people internationally being able to communicate within families; I think this has already taken hold but big-tech companies need to be held accountable when they steal data (i.e., FaceBook on WhatsApp).

Social psychology tells us negative information is "stickier" than the positive kind, and many societies are experiencing a fairly dark view of tech, so help us surface some positives – what are your top 3-5 positive uses of digital tech and connected media?

- I'm part of a Mental-Health Discord where there's a #channel to speak about feelings. We have these little discussions online and sort out problems with each other.
- I use my local library's online catalog to research books I really want to know more about, getting an education/learning online.
- I use Spotify as a means of de-stressing because music helps me calm down.

How do we empower and uphold the rights of people using or affected by technology?

For ethical justice in this area, it's really hard because so much can be discreet and hidden as well as unfiltered because technology doesn't have filters. The common sites people use, e.g., Google, YouTube, Instagram, etc. need way better forms of security to prevent such content, to flag messages between people, rather than being completely laissez-faire. This way, a proper technological system is set in place, because I see technology like a little society and there should be some sort of "law."

How can we better use technology to "augment" human intelligence without jeopardizing livelihoods/employment?

Proper information needs to be spread about the current state of affairs. Rather than big news companies spreading information for profit, humans as a race can advance if everyone is on the same page and has similar moral codes for what's right and wrong. This should be logical if all information that people get online is regulated, is true. Once this initial barrier is crossed, human intelligence will be unhindered if we do what we do best, which is to spread information, create new areas based on what society needs, and so on and so forth.

"Digital citizenship" means different things in different communities and countries, from civic engagement to good "netiquette" to equitable business practices to DEI. What does it mean to you?

Digital citizenship does mean the latter to me in how people must behave well with one another on the internet especially because this COVID pandemic puts us all in relationships with one another on a screen, interactions need to be regulated and need to involve the same people as IRL.

If what many people believe is true and social media needs to be better for young people, how would you advise tech companies to make it better for you and other people around your age?

Social media should change so that a system of likes and ways to compare one's lifestyle with another's isn't actually there, because a lot of stress from social media stems from competition with one another. Additionally, inappropriate and dangerous content should definitely be barred from the internet IF we can't find a way to set regulations and restrictions on what these teens can see.

Do the parents and teachers in your life generally understand how you use tech and, if not, what would you tell them they need to know about it?

Yes, I think teachers are the main source of why we use our technology because, as a school-oriented person, technology is necessary for me to complete homework and attend online sessions with my teachers. They know that we're absorbed on our phones because of the inattentive behavior of many students in school, whether they're texting their friends or don't get sleep because they've stayed up so late.

What makes you optimistic that we, as a society, can build a tech future aligned with our human values?

What makes me optimistic is how we as humans banded together for this COVID pandemic to find a vaccine that doesn't benefit a group of people but saved humanity itself. With science being so modernized and the whole world working together to find such a vaccine, I'm sure that, despite technology being relatively new, we can work together in a similar way.

Ananita Maitra

Outreach and Partnerships Manager, Trust & Safety, TikTok

Tell us about your current role:

In my role, I work to build bridges between TikTok and external experts so that we can strengthen our Trust & Safety work with their input and ensure we're building responsibly and equitably. I seek feedback from academics, NGOs, think tanks, and other experts in digital safety and expression and aspire to incorporate their perspectives across the full lifecycle of Trust and Safety's policy and product feature development.

What has been your journey into the Responsible Tech movement and HX?

My journey into this space started prior to my role at TikTok. While working at the United Nations, I was on teams grappling with some big questions on the topic of responsible technology – how do we ensure that the use of drones in humanitarian response are safe and in line with humanitarian/ethical principles? Do we need updated human rights guidelines to protect individuals and deal with the threats presented by technology today?

I joined TikTok's Trust & Safety Team because of its focus on ensuring that those using our platform can do so in a way that upholds our company's mission of bringing joy and inspiring creativity. Since joining the company in January 2020, I have witnessed TikTok's phenomenal global growth. While this has been a laudable feat for our global teams, we also want to make sure our platform is playing a positive role in both the lives of the individuals using our app and the societies they inhabit. Today, our team is working to implement responsible innovation principles and practices in our work. Our focus is to ensure our company leaves a lasting positive footprint in respecting, promoting, and preserving human rights, diversity, equity and inclusion, privacy, and wellbeing.

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

Landing on a specific definition of HX will be challenging for the reasons mentioned above – the existence of many fields of work tackling different sides of the HX equation. I think the best way to develop a collective approach would be to create channels of collaboration across similar fields of work while also leaving room for input from other industries.

For example, in the tech world having an informal working group of individuals from responsible tech/ethics teams coming together to discuss and share their experiences. This would facilitate the exchange of ideas and allow us to collectively address the challenges we are seeing. One of my professional resolutions in 2022 is to either find or help create more of these channels and I gladly welcome others to join me in this quest!

How do we empower and uphold the rights of people using or affected by technology? Are there both individual and collective inputs and, if so, what are they?

I do think that both individual and collective inputs exist. If you look at the Universal Declaration of Human Rights, it seeks to address rights at the individual level and at the level of the societies in which people exist.

Empowering and upholding the rights of people using or affected by technology starts with creating the channels for

people to share and express when they believe their rights have been disrespected. Creating these channels will hopefully generate trust between those affected by technology and the technology companies affecting them. The second step is to ensure that we listen to and act on what individuals or groups are saying. The last step is to have a continuous feedback loop between people (individuals and groups) and companies to regularly learn from the experiences of those we are impacting. At TikTok, we recognize that our community is our greatest asset. We actively seek the feedback of our incredibly diverse community of creators. It's also why my team exists, to ensure we are hearing from those who have studied the best ways to build technology in a way that keeps individuals and their rights at the center.

What can we do to incentivize businesses to bake HX (safety, privacy, data security, equity, user care, etc.) into product design?

In many ways, I think companies are starting to self-incentivize in full recognition that to uphold a company's mission, HX needs to be embedded in product strategies. The more a company bakes HX into its work, the more trust will be generated among those that use its products. I think making the link between HX, trust and long term growth will be key in creating incentives.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

The sheer proliferation of individuals, initiatives, and teams in this space (All Tech is Human is a prime example!) have made me feel very optimistic about the future of building tech in line with human values. I think we have gone from a recognition that tech is not always built with human values at the forefront to having an active desire to change that.

> "Empowering and upholding the rights of people using or affected by technology starts with creating the channels for people to share and express when they believe their rights have been disrespected."
>
> **-Ananita Maitra, Outreach and Partnerships Manager, Trust & Safety, TikTok**

Saima Akhtar

Associate Director, Vagelos Computational Science Center (CSC), Barnard College

Tell us about your current role:

I help shape the vision, programming, and mission at the Barnard Computational Science Center (CSC), which aims to lower the barrier of entry into computing for women and non-binary students and increase digital literacy across all disciplines.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

Yes, I'd agree with the criticism that large social media platforms tend to prioritize profit over the wellbeing of people. Ultimately, I think more government regulation and an increase in the presence of a diverse range of voices in all sectors of tech (design, engineering, and implementation) would help improve some of the negative social outcomes that we're seeing today. And by diverse, I mean that in every way: in terms of gender, race, sexual orientation, class, disciplinary background, and personal experience and knowledge of geographies outside of a Euro-American context.

How can we design business models that profit by prioritizing humanity?

As people become more aware of the way their data is extracted, used, and monetized by the platforms they use, I think the incentive for Big Tech to prioritize human wellness will become central to the success of their business models.

In other words, we're already seeing movements to boycott or lessen the use of platforms such as Facebook and WhatsApp because of their complicity in the deterioration of democratic processes here in the US and elsewhere, and other human atrocities. If there is enough public pressure, or a significant drop in the number of users these platforms host, they will have no choice but to prioritize humanity over capitalism in the amendment of their business models.

"Digital citizenship" means different things in different communities and countries, from civic engagement to netiquette to equitable business practices to DEI. What does it mean to you?

Increasingly, I think DEI initiatives are serving as a theater for corporations and institutions to protect their own interests rather than an actual agenda that should be acted upon in order to create real, lasting, meaningful, equitable change.

That being said, I I think an increase in digital literacy leads by extension to meaningful ways to engage in digital citizenship. In other words, learning about how technology can exacerbate structural inequity, alongside a CS or humanities or social science curriculum, will just produce better citizenship and technologists. Who, in turn, will help to build more just, human-oriented technological platforms.

Cennydd Bowles

Managing director, NowNext

Tell us about your current role:

I run a responsible design and innovation studio called NowNext; we advise technology teams – mostly in design, product, engineering, or R&D – on how to integrate ethics and responsibility into their daily work. My clients range from the biggest tech giants to public sector biotech; it's still a new and changing space, with no two clients' needs alike.

How would you describe your own relationship with technology?

I'll confess I find it easy to be disheartened about our trajectory: the metaverse, crypto, NFTs and other hot trends today simply don't marry up with what I thought the internet was going to be. I fail to see how they improve the human condition, how they make our world more equitable or more just. For all the web's flaws, I once had faith it would do that.

But there's good news: There's no fate but what we make. Technodeterminism is a myth. The future of technology is in our own hands; it doesn't follow some predestined narrative or glossy CEO fever dream. We can still choose brighter, more positive futures if we want them. I still have immense faith in technology as a transformative and positive force – keeping sight of that promise is what keeps me going.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

They do, of course, as does almost every profit-making company: The incentives are structured that way. So we need to change incentives. The most obvious way is through regulation that makes companies more liable for the externalities they cause. But it's not just a regulatory issue. I see real potential in harnessing the ethical appetite and power of everyday tech workers, who are learning how to collectively change their companies' mindsets. A lot of my work is with teams who feel that sense of duty and collective desire, but don't know how to put it into practice. Things are really starting to change.

Businesses often think in terms of key performance indicators (KPIs). How can we better define positive, neutral, and negative outcomes in relation to the human-technology experience?

KPIs aren't going away, so we have to bite this bullet. I use two methods. First, redefine or tweak KPIs with ethical modifiers. YouTube reportedly did this by changing their Watch Time target to Quality Watch Time. Sure, that still leaves lots of work: you need to define what "quality" means and how you measure it, but it embeds responsibility right there in the KPI. That's a powerful idea.

The second method is to use counterbalancing, or what I call mutually destructive metrics. We all know that once a measure becomes a target, it's no longer a fair measure: it will be gamed. A mutually destructive metric is one we pair to the original target in a way that prevents gaming: if you cut corners to achieve target A, target B blows up.

For example, if your game's main KPI is revenue per user, you may want to cut ethical corners to squeeze every last cent out of your players: dark patterns, exploitative loot box systems, unexpected subscriptions. Let's balance that, then, with a customer satisfaction or App Store rating metric. If you exploit your user base to hit the revenue target, this second metric will fall away dramatically. Adopting this kind of paired

failsafe is a useful way to keep those unethical temptations at bay.

What can we do to incentivize businesses to bake HX (safety, privacy, data security, equity, user care, etc.) into product design?

Aside from the obvious – regulation – two clear sources of pressure come from customers and from employees. There's so much evidence now that consumers want companies to prioritize positive social impact over the bottom line. Our community needs to be better at assembling and using that evidence to drive change, then building a portfolio of case studies that show how others have benefited from doing it.

That said, I think tech talent may even be a greater influence on companies' incentives right now. Dramatic shortage of skilled tech workers means candidates and employees hold far greater power than we might think. Tech talent is walking away from unethical, toxic businesses and increasingly heading toward issues-driven and socially minded firms. Given how crucial talented technologists will be to the future success of almost every company, we get to influence the sector by choosing carefully with whom we work, and demanding that our leaders take these issues seriously.

> "There's no fate but what we make. Technodeterminism is a myth. The future of technology is in our own hands; it doesn't follow some predestined narrative or glossy CEO fever dream. We can still choose brighter, more positive futures if we want them. I still have immense faith in technology as a transformative and positive force – keeping sight of that promise is what keeps me going."
>
> **-Cennydd Bowles, Managing director, NowNext**

Garnett Achieng

Data & Digital Rights Researcher at Pollicy

Tell us about your current role:

I am a data & digital researcher at Pollicy, a civic tech organization based in Uganda but working on pan-African projects. I research issues at the intersections of technology and society, with a specific focus on platform policy, online harassment, and content moderation. I am also a Tech & Public Policy Fellow at the Tony Blair Institute for Global Change, where I am looking at how government policies can be part of the solution toward online gender-based violence.

In your opinion, what does a healthy relationship with technology look like?

I think a healthy relationship with technology means that the human at the receiving end of the technology is aware of how the technology works in its entirety. For instance, a user of a social media platform should know how the platform and its algorithms work, how decisions on what they see and do not see on the platform are made, the rights they can exercise on the platform, and who to talk to or where to go when their rights are infringed on the platform. A healthy relationship means that the user is also actively involved in the decision-making process. This could mean users get a say on their experience with technology – for instance, on whether they can disable specific algorithms on their accounts.

How would you describe your own relationship with technology?

I am a techno-optimist. However, I am frustrated by how unimportant internet safety seems to be for developers and product managers. It is wild to me how a product with glaring safety risks can still be launched and deployed with no one batting an eye. I am also frustrated at how the tech world is so fast when shipping products, but so slow when it comes to taking feedback and rectifying mistakes. It's "move fast break things" until it gets to the part where everyone needs to go back to the drawing board and take stock of implications.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

Yes I do agree. Currently, a certain platform (wink) refuses to let go of their recommendation algorithms even though there's massive evidence that they are fueling the spread of misinformation. It is also hard to find reliable information on search engines because the people who pay the most get indexed higher, even when their content is not as reliable. Products are shipped out even when users complain about potential safety risks. It's easy to say that technologists should deprioritize profit-making and really put care into their products. However, that's not how the capitalist world we live in works. A good start to changing this would be incentivizing employees to use frameworks like safety-by-design or privacy-by-design. Employees get bonuses for the amount of profit they earn companies; maybe they should also get bonuses for how human-centered their products are.

What organizations are doing valuable work toward improving our tech future which you admire?

Pollicy. I may be biased because I work there, but under the leadership of Neema Iyer, we are working on multiple creative projects around tech and society. One of our most ambitious projects is a collaboration with women legislators from different African countries, where

we are equipping them with digital skills.

Bumble. I absolutely love how Bumble is built around making women's experiences better with online dating. I also love that they campaign for regulation that promotes women's safety in online spaces.

Chayn. I am always excited seeing organizations come up with innovative solutions towards the massive online gender-based violence challenge. Chayn offers free open-source resources to survivors of different forms of GBV.

What individuals are doing inspiring work toward improving our tech future?

Neema Iyer of Pollicy, Azmina Dhrodia of Bumble and formerly Amnesty International, Hera Hussein of Chayn, Suzie Dunn of CIGI, Tracy Chou of Block Party, Julie Inman Grant of Australia's e-Safety Commissioner's Office.

Can laws or regulation help foster HX without restricting speech and participation? If so, how? What regulation are you looking for?

Yes. Despite the general take that regulation slows or hinders innovation, I believe that regulation by platforms and governments can foster HX. Perhaps the slowing down of innovation for the sake of human rights should not necessarily be seen as a bad thing. I am particularly interested in laws and regulations that enhance online safety and provide recourse for victims of online violence. I think Australia's e-Safety Commissioner's Office is setting a good standard for how governments can offer solutions to online violence.

"I am a techno-optimist. However, I am frustrated by how unimportant internet safety seems to be for developers and product managers. It is wild to me how a product with glaring safety risks can still be launched and deployed with no one batting an eye."

-Garnett Achieng, Data & Digital Rights Researcher

Alexa Gwyn

University Student, Youth Adviser for RALLY and the HX Team, Headstream Alum

Tell us about your current personal and academic interests:

Hello! My name is Alexa and I'm a freshman at Vassar College; I'm also a neuroscience major. My academic interests lie at the intersection between science and social justice. I'm fascinated by human behavior; the reactions and responses to different environments, the beauty of irrational human emotion that overlooks logic, and the developing brain. I've mostly been interested in working in public health to fix the American healthcare system and global health economies, but I've found a real tie to digital wellness because it impacts my life so much. As for personal interests, I'm a big advocate for outdoor adventure! I'm a hiker, surfer, skier, backpacker, and tree appreciator. I also play varsity field hockey at Vassar and I sing and play the alto sax! I practice yoga and I'm a funky earring enthusiast :).

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

I first heard about HX in a Headstream focus group about a year ago. The best way I can explain it is with a comparison: "UX Designers" (user experience designers) refers to the people inside a tech company in charge of studying and curating the personal digital experience while on that single app or website. "HX" (human experience) refers to how ALL technology affects our lived experience even when we are OFFline. Cancel culture, comparison culture, political polarization, digital isolation. No one is thinking about how technologies will affect us when we close out of the app, just about how to keep us on the app for the longest amount of time.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

There is nothing about social media companies that is aligned with our needs as humans. Social media companies are interested in making the most money possible, and that comes from our data and our attention. If we want to take a step toward healthy tech relationships it needs to come from the top. As it was said in *The Social Dilemma*, we are the product. Once tech companies start seeing us as the customer, and start working with us toward a more meaningful digital universe, that will be a step in the right direction.

Social psychology tells us negative information is "stickier" than the positive kind, and many societies are experiencing a fairly dark view of tech, so help us surface some positives – what are your top 3-5 positive uses of digital tech and connected media?

There are certainly positive sides of technology. Cross-country and global connections to family and friends, especially with the development of FaceTime and Skype was huge! My brother lives in Australia, and the fact that I'm able to maintain a relationship with him while he's thousands of miles away is incredible.

Another obvious one for me is community. Technology has become a safe space for many people who feel as though they aren't being seen or represented in their daily lives. There are an infinite amount of people online who we feel could understand us, who we can connect to. There are thousands of videos that we can relate to, that inspire us to do new things.

Another important positive aspect of

technology is accessibility. Audio recordings for people with learning disabilities, visual interpretations, apps that encourage inclusive learning. As a student with a learning disability, these technologies that not only help me learn but connect me to others who are seeking the same thing are life-changing.

The last positive use of digital tech and connected media I would mention is the ability to be a creative. Technology has allowed so many aspiring designers and artists to follow their dreams. Graphic designers, sculptors, photographers, and painters are all able to share their art online for an audience and that makes me really happy.

If what many people believe is true and social media needs to be better for young people, how would you advise tech companies to make it better for you and other people around your age?

I read a book for school called *Trick Mirror*, by Jia Tolentino, and the first essay was all about the internet. Tolentino wrote about our identity on the internet and it really made me think. Social media positions our own identity as the center of the universe. As young people – especially because we are in the developmental stage where being part of the "in group" means everything to us – social media has become the epitome of our identity, the space where we can carefully cultivate our image to "fit in." To me, that's the primary issue with social media for young people. It's important that young people know that not everything you see online is real. We need to view digital spaces with a critical lens, and I think tech companies need to do the same. Teenagers are so malleable and tech companies need to recognize the kind of power their apps hold to shape young people all over the world. If it was their daughter, would they look closer? Would they study the human experience?

Do the parents and teachers in your life generally understand how you use tech and, if not, what would you tell them they need to know about it?

There's a miscommunication between adults and young people, especially our parents. Adults think that our tech use as young people is much less important because we aren't answering work emails or connecting with our colleagues on LinkedIn. The other divide is that our parents never grew up with this technology; they've seen a life before the iPhone and before Instagram. We haven't. My life is so intertwined with technology that it has become my reality, whereas many parents and teachers see technology as an alternate digital space that is separate from our lives. I also see how it could be hard to parent a child with all this technology when that isn't how your life was growing up. Technology means different things to us than it does to our parents in some ways, and that is where conversations about human experience (HX) can be helpful to bridge that divide.

> "My life is so intertwined with technology that it has become my reality, whereas many parents and teachers see technology as an alternate digital space that is separate from our lives."
>
> **-Alexa Gwyn, University Student, Youth Adviser for RALLY and the HX Team, Headstream Alum**

Nandita Sampath

Policy Analyst (AI and algorithmic bias) at Consumer Reports

Tell us about your current role:

I'm the policy lead for AI and algorithmic bias issues at Consumer Reports' advocacy team. I work with policymakers at the state and federal levels on AI-related legislation and try to get laws passes to mitigate algorithmic discrimination and other potential algorithmic harm for citizens and consumers. I've worked on issues regarding AI used in financial policy, social media, autonomous vehicles, employment and housing algorithms, and also mitigating some of the snake oil/pseudoscience that has been cropping up in the AI space. I also work on Consumer Reports' policy positions in these areas, putting out blog posts and other research on what the current AI issues are that affect consumers and how we think they should be regulated.

What has been your journey into the Responsible Tech movement and HX?

I started off as an electrical engineering major at UC Berkeley. During college, I got really interested in privacy and Facebook's data collection practices in particular. I was looking to learn more about these issues, but unfortunately at the time, most engineering schools did not really focus on mitigating the harms of some of the things we were learning how to build. I briefly worked as an engineer after graduation but soon decided I was more interested in thinking about regulating technology than actually building it, so I decided to get a Masters in public policy to focus on tech regulation. During grad school, I fell into a bunch of different AI ethics and policy projects and realized it was a great fit for both my technical background and my tech policy interests. I was lucky enough to get a job at Consumer Reports after I finished grad school. There, I get to work with lawmakers on passing legislation regarding AI issues that will hopefully benefit citizens and consumers in the long run.

How can we better use technology to "augment" human intelligence without jeopardizing livelihoods/employment?

I can only really speak on AI issues, here — I think it is super important that AI is only used as a tool to augment human decision-making at most, if used at all, rather than be the tool that is making the final decisions regarding people's access to life opportunities and other rights. AI tends to be trained on historical data, so things like employment and housing decisions could exclude people who have historically been excluded from such opportunities in the past — and I personally don't think algorithms should be used in many of these cases, primarily because decisions in these spaces tend to be somewhat arbitrary anyway and because it is difficult to contest a potentially false decision made by a black box algorithm. However, in healthcare, AI-enabled diagnostic tools are becoming more common. For example, an algorithm can look at pictures of someone's skin and make a determination about that person having a marker for skin cancer or other disease. While potentially helpful with early diagnosis, there could be some bias in these algorithms (such as the diagnostic tool being less accurate for people with certain skin colors, for example). These sorts of tools should only be used alongside a human decision-maker (a doctor, in this case), acting as a factor in the decision but not the final decision itself. Otherwise, no one will be accountable if and when an incorrect decision is made, as AI will never be perfect.

How can we share information and best practices so that smaller platforms and startups can create ethical and human-centered systems at the design stage?

First, I think government needs to clarify how emerging technology is affected by existing law such as antidiscrimination law, advertising substantiation law, etc. A lot of companies right now aren't sure whether their cutting-edge technology falls under regulated sectors, so it is up to our government to make clear how and when our existing laws apply to emerging technology. Second, companies need to make ethics integral to their product from the very beginning of the design process. This could require the creation of an independent standards body that puts out guidelines on designing new technology. Furthermore, we should be incentivizing venture capitalists in some to way to focus their resources on products that benefit society in a certain way or can help achieve particular community goals. I always thought it would be interesting to have academics, social scientists, and people from civil society partner with incubators to come up with an ethics training program that all investees would have to go through in order to receive funding (or something like that).

I do think incentives for investing have to change in a way that pivots to more responsible, thoughtful technology. I don't have a great solution for how this can happen, but I think this is starting to become more common as consumers are becoming more aware about privacy and ethics issues in the products they use.

> "I think government needs to clarify how emerging technology is affected by existing law such as antidiscrimination law, advertising substantiation law, etc. A lot of companies right now aren't sure whether their cutting-edge technology falls under regulated sectors, so it is up to our government to make clear how and when our existing laws apply to emerging technology."
>
> **-Nandita Sampath, Policy Analyst (AI and algorithmic bias) at Consumer Reports**

Nneka Sobers

Research + Program Manager at Cornell Tech's Urban Tech Hub

Tell us about your current role:

I am an urban designer and civic technologist who strives to help citymakers leverage technology to increase public good. Working at the intersection of urban planning, design research, and product development, I take a systems-level and empathetic approach to developing digital tools that help make city systems more accessible, inclusive, and equitable. Currently, I am the Research + Program Manager at Cornell Tech's Urban Tech Hub, which is focused on shaping the field of urban tech with a human-centered approach while developing new ideas/initiatives on how technology can make cities more just and resilient. My

particular role within the team is to conduct research and develop opportunities to act on our findings. This involves working across various sectors (government, industry, non-profit, community advocacy groups, etc.) to design and develop collaborative and experimental initiatives (eg. prototypes, educational resources, conferences) that can explore the impact of our applied research insights.

Prior to joining Cornell Tech, my previous roles included being a Product Manager at NYC Planning Labs, a Design Research Lead at WeWork, as well as a co-founder of a civic tech startup.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Given my background in urban planning and community advocacy, I've always prioritized engaging and incorporating the voices and visions of a diverse spectrum of people into my process. In my field of work, I'm usually designing physical or digital tools that aim to improve the quality of life for people who live in cities. That's why HX feels intuitive to me – HX is built on a foundation of valuing, understanding, and celebrating people first, rather than being distracted by tech solutionism.

What has been your journey into the Responsible Tech movement and HX?

Although my background is a mix of various disciplines (urban planning, product management, design research), I've consistently prioritized creating initiatives that help everyday people, especially vulnerable communities, directly shape their own environments. From transit justice to civic engagement, I was very active in creating hyperlocal advocacy initiatives before grad school. It was during my time completing my Master's program at MIT that I became curious about how technology can enable direct ways for the communities not only to advocate for the issues they care about but also to create the worlds they want to see. Being deeply influenced by participatory action research, co-design, political economy, and digital democracy, my Master's thesis laid the foundation for a startup I co-founded which aimed to help low-income communities crowdfund and implement local projects all through a digital bartering economy.

Initially when I co-founded the startup, I felt insecure about not having a business or tech background. However, I soon realized that my Urban Planning education made me a unique startup founder. In Planning school, there's a lot of emphasis on ways to meaningfully engage/understand the needs of diverse communities and critically assess and mitigate ways that our work may cause societal harm. This people-first emphasis often felt like an afterthought in the tech startup culture. Although my startup ended after ~2 years, I felt like the close of my startup experience was the beginning of my journey in sharing the power and essentiality of developing technology in ways that are ethical,

Continued on next page

meaningful, and focus on the needs of people, especially vulnerable communities.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

My ideal tech future includes having more diverse types of people be involved in creating positive human and environment-focused technology. From designing web interfaces that are not suitable for people with colorblindness to algorithms failing to detect dark skin in cameras and self-driving vehicles, exclusionary technology can cause great harm, even if unintended. In order to overcome technology from increasingly marginalizing certain groups of people, we need to expand who is included in the creation and development of technology. If we dismantle the barriers of access and entry into the field, as well as build more compassionate, supportive, and sustainable pathways for underrepresented people to shape their reflection in technology, then I believe that our technology will ultimately be more empathetic and inclusive and will inspire more positive societal change.

What organizations are doing valuable work toward improving our tech future which you admire?

Although I'm a relatively new New Yorker, I'm constantly inspired by the city's vibrant network of organizations that are building equitable, inclusive, and anti-oppressive tech futures. Some of my favorite NYC-based organizations that are cultivating responsible tech futures include:
- Afrotectopia
- New_Public
- School for Poetic Computation
- Data & Society
- Pioneer Works
- Eyebeam
- POWRPLNT
- Somewhere Good
- Cornell Tech's Urban Tech Hub (which is why I'm excited to be part of the team!)

> "In my field of work, I'm usually designing physical or digital tools that aim to improve the quality of life for people who live in cities. That's why HX feels intuitive to me — HX is built on a foundation of valuing, understanding, and celebrating people first, rather than being distracted by tech solutionism."
>
> **-Nneka Sobers, Research + Program Manager at Cornell Tech's Urban Tech Hub**

Dr. Megan Moreno

Professor of Pediatrics, PI of Social Media and Adolescent Health Research Team, Director of Technology and Adolescent Mental Wellbeing program

Tell us about your current role:

I'm an adolescent medicine researcher as well as a clinician, professor of pediatrics and adjunct professor of educational psychology at the University of Wisconsin, Madison. I serve as the principal Investigator for the Social Media and Adolescent Health Research Team SMAHRT), which strives to advance society's understanding of the relationship between media and adolescent health. Our goals include embracing innovation, advancing knowledge, and supporting trainees toward improving the health and wellbeing of teens. We prioritize incorporation of diverse voices and perspectives in every aspect of our work.

I also lead our Technology and Adolescent Mental Wellbeing Program within SMAHRT. The Technology & Adolescent Mental Wellness program (TAM) is driven by the following foundational question: How can technology support adolescent mental wellness? The objectives of the TAM program are threefold. First, we aim to develop community and foster ongoing collaboration among researchers, youth, clinical providers, educators, non-profit organizations, and those in industry, policy, and philanthropy. Second, we aim to promote new research on adolescent technology use and mental wellness. This has

included providing initial funding for six research projects and creating the TAM Data Consortium in 2021 to make new research projects possible. We recently funded investigators to develop their own Youth Advisory Boards in 2021-2022. Our third aim is to disseminate research findings using both traditional, academic approaches and nontraditional, public-facing approaches.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

As an adolescent medicine physician and researcher, I would strongly advocate for inclusion of adolescent voices in designing technology as well as current approaches to technology use. We maintain a youth advisory board who advises us on ways that they use technology, the benefits and challenges of their experiences, and their ideas for making technology a better experience for them. Often these ideas are different from what we, as adults, would imagine they would think or share. Designing solutions and new approaches for youth needs to include youth to resonate with that population.

How do we empower and uphold the rights of people using or affected by technology? Are there both individual and collective inputs and, if so, what are they?

I'd like to tackle this question as well as it dovetails with my answer to a previous question. In order to empower or uphold the rights of adolescents and young adults, we as experts in the field need to recognize the limits of our own expertise. Regardless of whether one is a policy expert, a communicator or a researcher, we are still all adults and lack the lived experience that adolescents and young adults are having right now. We've never been 16 and quarantined and using TikTok for distraction from our anxiety about a global pandemic. It is critical to include the voices of that population in our hopes, plans and assessments. Otherwise we will design solutions that appeal to adults and miss a critical population of technology users.

What can we do to incentivize businesses to bake HX (safety, privacy,

data security, equity, user care, etc.) into product design?

One creative approach may be to create a youth board of review, this board could be created using <u>published principles</u> to benefit both organizations and youth. This board could review new technology and put forth their own reviews related to safety, privacy, data security, etc. Promoting this board as a novel approach would likely garner attention from the media, and applying to this board could become a sought-after position to attract diverse and committed youth. Youth may be inclined to attend to reviews by youth versus by adults, and so this type of review could become a gold standard for how youth understand different technologies. This type of positive pressure may play a role in impacting technology companies to consider these factors as a routine aspect of their design process. In an ideal world, it could even influence companies to set up their own youth boards to provide this input on their products prior to release.

How can we share information and best practices so that smaller platforms and startups can create ethical and human-centered systems at the design stage?

Our TAM (Technology and Adolescent Mental Wellbeing) program prioritizes inclusion of the voices of youth, and we write and present about this often. One new program we launched this past year was to provide start-up funds to junior researchers to create their own Youth Advisory Boards, recognizing that this work takes time and funds at its inception. We funded 14 investigators to create their own YABs, and have provided support and guidance around recruitment and structure. We will host a half day conference for our funded investigators next month so they can get feedback and connection to each other to support this work. I suspect that a similar approach of providing small funding packages to advance critical structures, and connection to each other, would benefit smaller platforms and startups.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

Today's generation of adolescents are thoughtful about their technology use and prioritize relationships and experiences. They have navigated a pandemic, political instability and critical social justice movements. They are the most diverse generation of youth we've had in the US. I'm very optimistic that by leveraging their unique perspectives and experiences, we can create a new technology future focused on the human experience.

> "In order to empower or uphold the rights of adolescents and young adults, we as experts in the field need to recognize the limits of our own expertise. Regardless of whether one is a policy expert, a communicator or a researcher, we are still all adults and lack the lived experience that adolescents and young adults are having right now."
>
> **-Megan Moreno, Professor of Pediatrics, PI of Social Media and Adolescent Health Research Team, Director of Technology and Adolescent Mental Wellbeing program**

Maya Nittoor

Youth Ambassador, Telosity

Tell us about your current personal and academic interests:

I am an urban designer and civic I am a high school senior looking to be at the forefront of mental health reform. I'm currently preparing to study psychology in college, with future career aspirations of becoming a clinical psychologist. I believe that advocacy, systemic change, and dynamic medical care are crucial to improving the lives of people who live with mental illness.

My focus these past few years has been on using technology and digital spaces to make mental health services more accessible to teenagers. So far, I have provided peer support for hundreds of youth and participated in several events to facilitate youth understanding of mental health issues — all through the internet. As the need for comprehensive mental health care only grows, developments in technology remain one of the most promising frontiers to address this issue. Making sure the power of tech is harnessed for good will be an ongoing concern in the future of mental health care.

In your opinion, what does a healthy relationship with technology look like?

For me, a healthy relationship with technology is when technology serves the user's needs and not vice-versa. Utilizing technology to support our needs, rather than technology manipulating users and determining what our needs should be, is the best way to ensure that health and wellbeing are prioritized as technological innovation grows.

How do we empower and uphold the rights of people using or affected by technology?

Increasing user autonomy is crucial to empowering and upholding the rights of people using or affected by technology. Organizing technology to be used for the benefit of the community and making sure those affected by decisions in tech have a say in the matter will all make for a fairer digital world. Without directly involving people affected by technology, it becomes too easy for their rights to become neglected.

If what many people believe is true and social media needs to be better for young people, how would you advise tech companies to make it better for you and other people around your age?

Social media companies must be willing to put youth mental health before profits. As user algorithms become increasingly targeted, it's easy for teens to get caught in a cycle of false information or harmful media. Because dangerous messages garner attention, and therefore revenue, it's profitable for teens to have a negative relationship with the technology they use. Prioritizing the wellbeing of users and promoting positive information to young people should be a starting point for any company genuinely interested in bettering its treatment of youth.

Do the parents and teachers in your life generally understand how you use tech and, if not, what would you tell them they need to know about it?

Most parents and teachers are aware that social media has been proven to have adverse effects on youth, and understand the dangers of being a young person on the internet. However, most adults don't consider that technology can also serve as a safety net for teens: providing them with the knowledge that allows them to understand themselves and the world around them better, and connecting them with communities that offer friendship and support. For teens who are disadvantaged or dealing with difficulty, the resources technology

makes available can be a lifesaver.

What makes you optimistic that we, as a society, can build a tech future aligned with our human values?

I remain optimistic that we can build a tech future aligned with human values because I have seen firsthand how technology can make a difference in the lives of young people. Through providing volunteer emotional support to teenagers over the past year, I have seen how technology's ability to connect us all can change perspectives, and ultimately lives. Communities built on empathy and knowledge make for a promising technological future.

"I remain optimistic that we can build a tech future aligned with human values because I have seen firsthand how technology can make a difference in the lives of young people. Through providing volunteer emotional support to teenagers over the past year, I have seen how technology's ability to connect us all can change perspectives, and ultimately lives. Communities built on empathy and knowledge make for a promising technological future."

-Maya Nittoor, Youth Ambassador, Telosity

Thu Do

Design Collective Builder

Tell us about your current role:

I'm heading up TAILORU, a group whose sole mission is to advance humanity. We believe that in a world where technology is exponentially accelerating, it's our unique opportunity (and moral obligation) to invest in humanity's ability to create for good.

That's why I've spent my last 10 years gathering researchers, designers, technologists, and educators to work with startups, organizations, and individual artisans to further humanity. We do so by creating craft tech for makers, launching digital products for startups in the impact space, and providing design thinking learning opportunities to the public so that everyone can make good happen.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

The Thu Do Dictionary defines Human Experience as a shared collective experience that applies the best of humanity (our empathy, creativity, and uniqueness) beyond the benefits of humans. It does not serve only us but also other living beings and our planet. It answers the questions, "What does it mean to be human?" and "What can we do for others?"

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

We often get excited about new technology as the "shiny new thing" to solve all problems, so we forget there is a human with feelings being replaced by this technology. This human has unique abilities (especially the creativity to make things by hand) that technology will take a long time – if ever – to replace.

My company TAILORU started when I went on a visit to an embroidery village in Vietnam. Vietnam is rich in culture and tradition, and many villages still maintain their artisanal crafts. In this particular instance, I remember not just the beautiful craft, but also the masses of people leaving their craftsmanship to work in factories. These artisans have wonderful skills that are very hard for technology to mimic. With simple connective technology, we can bring their talents and gifts to the world instead of wasting them. There's beauty in every single thread, every single imperfection. When I came back from this trip, I decided to form a company to protect what truly makes us human in a technologically advanced world. So let's actively invest in who we are and what we can do.

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

Have more diverse voices at the table. I can speak to how to use design voices should play a role in building this Human Experience because that's my jam!

For me, it starts with diversifying access to design education. I love spending time at bootcamps and universities to share design knowledge. A lot of my students are CAREER SWITCHERS turned designers, often coming from sales, tech, and other industries. When we can infuse design thinking into people with different backgrounds, suddenly the problem we want to solve benefits from all of their past experiences.

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Once molded by education, I believe that everyone should have access to a design career and we need to activate that. Through the TAILORU Collective, super diverse, independent designers and researchers gather in virtual spaces to work on humanity-driven projects together. We don't follow an agency model (which can be explorative and contradictory to innovation), nor are we a co-op (which can be heavy with procedures and slow to change). We follow a unique collective model where every voice has the same weight and commands the same respect. The Collective members move seamlessly through all functions of the Collective: from managing their own projects to conducting workshop learnings to incubating ideas that serve our mission to running the community and more, depending on interests and expertise. At our core, we are bonded by our shared belief that every difference is worth celebrating.

Lastly, I'm betting on startup founders – those with a vision, a passion to do good, and a healthy appetite to adopt new ways of thinking. We need to invest our time and our money where they are.

How can we better use technology to "augment" human intelligence without jeopardizing livelihoods/employment?

In my view, we need to first understand what defines human intelligence. What is it that humans can do and technology cannot do? In a free economy, we cannot force businesses to use human capital if technology is the clear choice for the task. We can, however, count on the business's willingness to employ humans if humans in fact do a better job.

The second question we should answer in this case is, "What can technology do better than humans?" Let's not try to discount the fact that technology is improving at certain tasks exponentially and we humans are freaking out! So, what can we enlist their help with?

For me, humans have creativity while technology has accuracy. Humans lean on specific, intangible life experiences while technology depends on a vast amount of concrete data. A tailor can make a beautiful silk embroidery shirt that fits the customer's preference if she has the technology to capture the measurements accurately. We're actually trying to build this technology for our artisans using Augmented Reality. In this way, we recognize the power of both parties and foster a noncompeting, symbiotic relationship between the human and the machine.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?
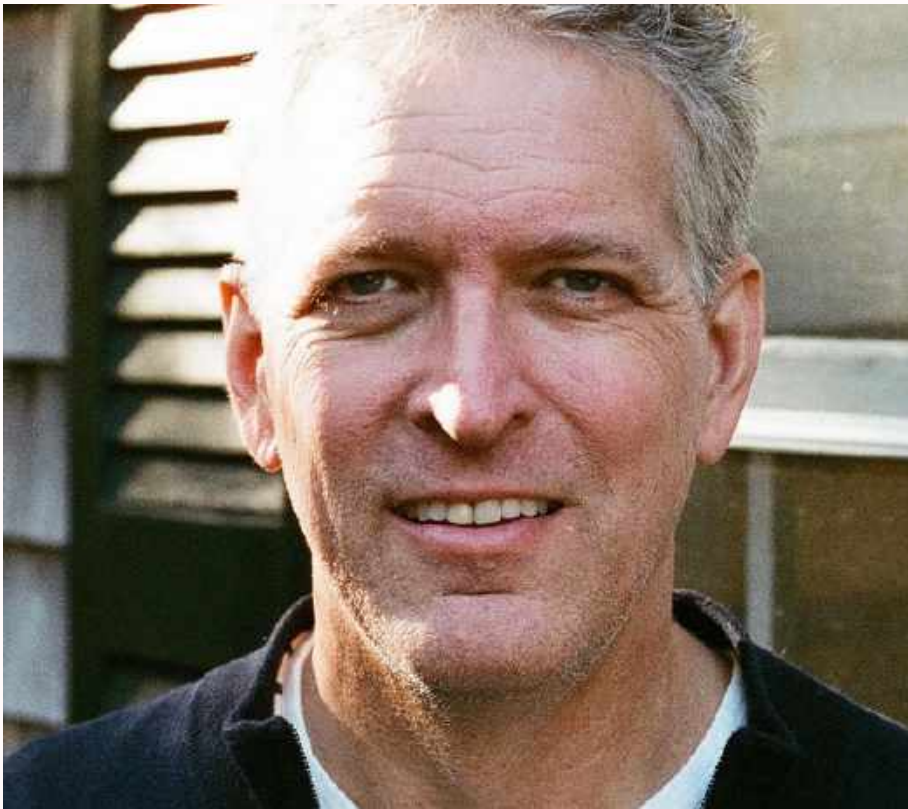
I believe we are at a point in our shared human history that being aligned with our human values means serving beyond our species agenda. We need to create a tech future that serves not only us but other living things and our planet. I am optimistic because what used to be a nice thing to do is now a necessity for survival. We speak out because we must. There are so many startups, designers, researchers, technologists, and educators who are banding together to solve multi-facet problems. It makes me feel hopeful for our shared creation of a future.

"We need to create a tech future that serves not only us but other living things and our planet. I am optimistic because what used to be a nice thing to do is now a necessity for survival. We speak out because we must. There are so many startups, designers, researchers, technologists, and educators who are banding together to solve multi-facet problems. It makes me feel hopeful for our shared creation of a future."

-Thu Do, Design Collective Builder

William Powers

CEO, Because Humanity

What individuals are doing inspiring work toward improving our tech future?

There are too many to name. For me, the most inspiring work is coming from philosophers, artists and other creative thinkers who are challenging the prevailing assumptions about tech and imagining new paths forward.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

The technology past, going back millennia, makes me optimistic about the tech future. Powerful new technologies tend to be disruptive and disorienting. But humans have a way of learning over time how to live happily with their inventions and to use them in positive, constructive ways. Right now it would be nice if we could speed that process up. There's so much work to be done to ensure that today's technologies reflect the best human values and can be trusted to serve our true needs.

Tell us about your current role:

I'm leading Because Humanity, a nonprofit public-discourse analytics start-up in collaboration with AI labs at MIT and Dartmouth.

In your opinion, what does a healthy relationship with technology look like?

A healthy individual relationship with technology is one that enriches and deepens the experience of being human. A healthy collective relationship with technology is one that helps us build fair, flourishing, peaceful communities and societies.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Perhaps it's about two things: 1) our individual experiences while interacting with a given technology and 2) how the technology shapes human experience writ large, including how our societies work and whether they live up to their ideals.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

All technologies should be tools for human flourishing. I like to imagine a tech future in which this simple ideal has become reality.

Alexandra Jayeun Lee

Principal Research Manager, Microsoft

Tell us about your current role:

I lead a team of UX researchers supporting Microsoft's Power Platform studio, a global leader in low-code application development geared toward helping information workers in any industry and organization size to leverage our platform, regardless of their technical background or experience, to successfully transform their work in the digital age through creation of multi-modal applications, workflow automations, conversational AI bots, and portals.

In your opinion, what does a healthy relationship with technology look like?

To me, a healthy relationship with technology can happen for those who already have the privilege to access it in the first place, and when we are able to establish reasonable boundaries to choose when to connect and disconnect with any device or tool we rely on to be connected to the world, but I would also consider what accommodations can we introduce to those without access to it in the first place.

Modern technology as we know it today is still a relatively recent phenomenon that has become a set of necessities in a very short span of time relative to the history of humanity. Some argue that technology is always neutral, that it

is people who use it that can turn it into an instrument of good versus evil. While I don't disagree with that, I think we have seen this effect amplify beyond measure in recent years as the gulf between those who have access to technology and those without have had very different health outcomes, and those of us who are in it need to do much more.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Human experience (HX) is a sum total of everyone's experience with technology, including those who are not direct beneficiaries or consumers of it and its effects. Because the sum total of a given technology's true effects are not usually accounted for during its inception and delivery, we need to assume it will affect everyone at some point.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

I would love to see every new technology be considered through the lens of ethics and its impact on society before they get rolled out into the real world. I highly recommend the publicly available toolkits developed by Microsoft's Ethics and Society team.

What has been your journey into the Responsible Tech movement and HX?

I studied architecture in college and spent the first few years practicing architecture in a corporate firm when I realized I wanted to dedicate the rest of my career building for everyone, not just for the select few, and sought to democratize design thinking (aka human centered design) so anyone could learn to think systemically like an architect and make better decisions as a result. How I put this into practice has evolved over the years and across industries, becoming more crystallized with time, including during my recent stint driving a civic service design lab in Oakland, California, and my current role as a research manager at Microsoft.

What needs to be done, added and/or eliminated to foster cultures that value human capital amid the growing use and

impact of technology innovation in responsible tech to shape a better, more equitable HX for all? How do we (all of us, across all sectors) make it so that technology serves people and humanity?

As technology becomes more ubiquitous in people's lives, a top priority across every organization charged with building it will be to ensure it continues to honor and respect basic human rights, which, in the context of technology, include data privacy, security, compliance, and transparency. More and more of our personal information, including our thought patterns, habits, and behaviors are being captured as our digital footprint expands and as we spend more time connected online. It will become increasingly important for all of us who handle any individual's personal data to exercise appropriate data stewardship, irrespective of modes of collection, in order for us to build and contribute to an ecosystem of trust, safety, and respect.

Some of the common questions we ask when conducting research include: What data are we collecting? Why are we collecting them? What purpose does this serve? How does this data help us make better decisions? At the same time, it becomes increasingly important to consider practices around how we store data, ensuring that we adhere to the General Data Protection Regulation (GDPR) guidelines even outside of the EU, and giving people who engage with our research team information and appropriate choices when they interact with us, including the right to be forgotten. The technology we are building today may outlive us, and our ability to experience its consequences in their entirety is also limited, so it is important for us to step into it with thoughtful consideration for and with all of humanity.

> "As technology becomes more ubiquitous in people's lives, a top priority across every organization charged with building it will be to ensure it continues to honor and respect basic human rights, which, in the context of technology, include data privacy, security, compliance, and transparency."
>
> **-Alexandra Jayeun Lee, Principal Research Manager, Microsoft**

Maritza Johnson, PhD

Founding Director, Center for Digital Civil Society, University of San Diego; Partner, Good Research

Tell us about your current role:

As the founding director of the Center for Digital Civil Society at University of San Diego, I am working to give people the knowledge and agency they need to thrive in a digital world. As a partner at Good Research, I work with a wide range of organizations to tackle tough challenges at the intersection of data privacy, security, and technology.

I've spent my career working in tech. I love technology and acknowledge the many benefits it's had on society. But I'm worried – deeply worried. The downsides have been devastating, and those of us in tech have not done enough

good to take care of the bad. Enough. To do more good, I am focusing on our relationship with data. We need to redefine how we think about, use, and care for data. We need to do better, and I am calling on others to join me.

In your opinion, what does a healthy relationship with technology look like?

We are inextricably connected to our data and to each other by data. Having a healthy relationship with technology is about having a healthy relationship with data.

As individuals, we need to trust who has our data. You don't earn trust by checking a compliance box. You

earn trust by building a relationship. It's not enough for companies to say they are committed to using our data safely. They need to honor those commitments and demonstrate to us how they are honoring those commitments. And give us the opportunity to give feedback, ask questions, and learn more. A relationship built on blind trust and one-directional communication can't help but be dysfunctional.

In a healthy relationship with data, companies should be held responsible for ensuring their business practices are safe for the public. To hold them responsible, the government should provide clear, reliable, enforceable consumer-focused regulations that ensure technology is safely deployed. Meanwhile, people should have a place to go to ask questions, find answers, and engage on issues with our data.

In sum, in a healthy relationship with data, individuals have power over their data and how it is used. They have the knowledge, resources, and agency to advocate for and participate in decision making about their data.

What has been your journey into the Responsible Tech movement and HX?

For more than 15 years, I have been tackling tough challenges at the intersection of data privacy, security, and technology. I studied computer science and then studied it some more. I've done research, teaching, and community engagement. At this point I can confidently say I am an expert on human-centered security and privacy.

But my journey into responsible tech got real once I started working in industry. In my experience, I did not see companies prioritize privacy and data responsibility. Whether building a specific product, new systems, or a whole company, privacy was often treated as either a compliance exercise or a nice to have once other priorities were satisfied.

Now I am in academia, working at a university that prioritizes ethics and social responsibility. I am teaching and working with the local community about responsible data. I am also working with industry to help them do data right. They're eager to learn and I'm eager to help them get there.

What does your ideal tech future look

like and what needs to happen in order to make that future a reality?

In the absence of meaningful regulation of how data is collected, stored, and used, companies are doing what they want with low private costs, often with terribly high social costs. This leaves people without the knowledge and agency to make informed decisions about their data. I would love for us to be able to participate in the digital world without submitting to opaque data practices. Let's bring control of data back to individuals. To do so:

- Government must incentivize healthy data privacy practices and develop better policies.
- Industry must prioritize privacy, designing and building products that protect user data.
- Academia must prepare students to design and build better and recognize unsafe privacy practices.

To bring control of data back to individuals will take an enormous, concerted effort. As an academic, I can prepare students to build better technology. As a computer scientist, I can help fix industry's broken practices. As a privacy expert, I can advise policymakers on regulation. But the missing piece is helping individuals learn more about how their data is used and what they can do about it. As long as amazing technology feels like magic and as long as regulating use of data remains behind technological advances, people will remain disempowered. I want to fix that!

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

I am excited and optimistic, because it feels like, for the first time in my career, I'm not alone. There are now nonprofits focused on the impact of technology on society. And there are funders who support them! Colleges and universities are reinvesting in the humanities and encouraging truly interdisciplinary studies. Companies are under fire for their bad data practices, among other things. Regulations like GDPR are adopting an individual-first approach to data regulations. This is all very encouraging. We've got a lot of work to do to fix things, and a lot of work to do to build better, safer technology, but we're not alone.

> "As an academic, I can prepare students to build better technology. As a computer scientist, I can help fix industry's broken practices. As a privacy expert, I can advise policymakers on regulation. But the missing piece is helping individuals learn more about how their data is used and what they can do about it. As long as amazing technology feels like magic and as long as regulating use of data remains behind technological advances, people will remain disempowered."
>
> **-Maritza Johnson, PhD, Founding director, Center for Digital Civil Society, University of San Diego; Partner, Good Research**

Alice Hunsberger

Senior Director of Customer Experience, Grindr

Tell us about your current role:

I'm the global head of customer experience at Grindr. My department includes content moderation, trust and safety, policy, customer support, and our community advocacy program. Grindr is incredibly community-focused, and so I've gotten to do a lot of really exciting work in this role.

My team is a strategic, proactive resource that helps keep our community's voice centered at the company, and that helps our global community thrive. We think about not only how our community interacts with each other, but also how our company interacts with

and creates for the community.

Recently my team put out a whitepaper on best practices for gender-inclusive content moderation, taking everything we've learned in our years in the industry and sharing publicly for other tech companies to consider. I'm also currently leading our working group on ethically integrating machine learning and AI, and I'm currently in the process of refreshing our community guidelines.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not

users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

Spaces need to be designed with inclusivity and equity in mind, which doesn't always mean the same thing for everyone -- people who are part of a group that is often discriminated against or experiences bias often may need additional support from platforms to make sure that their experience isn't diminished.

For example, on many platforms, trans and nonbinary people are reported much more frequently by other users for terms-of-service violations, due to bias on the reporter's end. Someone may say that a trans woman is "fake" or "impersonating" just for being herself. This means platforms would need to create checks and balances for these reports to make sure they're not amplifying the bias. A "user" can be treated the same no matter who they are, but a "human" needs consideration based on a wide range of factors.

Platforms are learning that "being neutral" is in itself not neutral. Harms can happen if a platform stands back and treats everyone equally. Equality does not mean equity, and keeping moderation policy and enforcement out of "identity politics" will hurt marginalized groups. I think the time of "neutral internet" is over, and as time goes on, platforms will become more comfortable with taking pointed stances based on their own values. This gets tricky when you have giant global companies trying to be everything to everyone.

What has been your journey into the Responsible Tech movement and HX?

Almost 20 years ago (pre-social media!), I naively founded an online community, knowing nothing about moderation or community management. It thrived for a few years and was a great place where I made many lifelong friends, but eventually became overcome with trolls. I didn't have the heart to keep going, and the community shut down, but I learned a lot along the way.

After that, I worked in the documentary film industry for a while, and then was co-founder of two in-person community spaces – a meditation center and a community gaming space. Eventually I

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came back to online community building and the tech world as head of community at two global dating apps – OkCupid and, currently, Grindr.

In all the work I've done, I've seen how important it is to be intentional with community building – whether in a physical space or online – and how "open and free spaces" where people can do anything they want often devolve into chaos and drama given enough time. I've learned that it's critical to design spaces from the very beginning with a core set of values, and to not be afraid to enforce those values when necessary. It's also important to think about the community as a whole vs. individual freedoms (what's right for one person may not be right for the group), and to think about your community members as whole, unique humans, not just "users."

I'm excited to see this kind of thinking evolving as technology spaces evolve. The conversation around these issues today is much more advanced than it was 20 years ago, and I only wish I could go back in time and share some of these things with my younger self!

If one person's free speech is another's harm and content moderation can never be perfect, what will it take to optimize human and algorithmic content moderation for tech users as well as policymakers? What steps are needed for optimal content moderation?

It's important to consider the rights and needs of the collective whole, not just individuals. If you look at research on the happiest countries in the world, they're all countries in which the culture puts a lot of focus on the group over the individual. In my own life, I've also found that I become happier when I help others become happier instead of just focusing on myself.

While free speech is critical to democracy, focusing too much on individual freedoms becomes problematic in community spaces. Content moderators need to be able to weigh the harm being done by the individual to the community as a whole vs. the harm that will be done to the individual if they're banned from the platform. Priority needs to be given to the health of the ecosystem as a whole.

Grindr is the world's largest platform for the LGBTQ+ community, so banning someone from Grindr for life is essentially cutting them off from their community, especially if they live somewhere without physical community spaces. Because of this, at Grindr we consider banning very carefully. However, we still need to be able to prioritize the community as a whole over the individual. We've implemented a warning system which gives the user a second chance but still allows us to educate and coach our users on what is acceptable behavior in the community. We also let users know that certain words and phrases aren't allowed if they try to add them to their profile, which helps to prevent harms before they happen. These are a few things of many that we do to create balance between freedom and safety.

As the Trust and Safety space has evolved over the years, I now see users expecting more customization of their experiences on platforms, especially when it comes to content moderation. What some people find triggering or offensive, other people find inoffensive, and so I think in the next few years, platforms will start to give people more control over what they want filtered out of their feeds and what they want to keep seeing. Users may even be able to choose their own algorithms, to some extent.

That sounds great, but where this balances out for the average user who wants convenience and ease over a million complicated options has yet to be determined. Finding that sweet spot between privacy, safety, convenience, equity, and collective good is incredibly difficult.

What can we do to incentivize businesses to bake HX (safety, privacy, data security, equity, user care, etc.) into product design?

A good, empowered, customer experience or community department is critical! The CX/Community team is the link between the community of actual humans using a platform and the folks who are designing it and making business decisions. If given proper authority at the company, the community team can make sure that everyone agrees on a set of shared values – and that those values are upheld in both the business and in the community.

Unfortunately, many businesses are still stuck in an old-school way of thinking that sees content moderation and customer support as a "cost center" or just as "operations" and not as part of a proactive, strategic department that can help the business – and the community – thrive.

How can we share information and best practices so that smaller platforms and startups can create ethical and human-centered systems at the design stage?

We need to have more conversations across disciplines and share best practices openly. I see a lot of conversations among academics and those in the nonprofit sector about the evils of social media, but not a lot of engagement with those in the industry who are actually trying to run community operations such as content moderation.

In reality, every single person I've ever met in the content moderation and Trust and Safety industry cares a lot about their community and is trying to do the right thing. There are often really difficult calls to make and compromises in every direction. It's an incredibly difficult job and I'm not seeing a lot of actual practical advice which can be utilized. This is

especially necessary for smaller companies that aren't able to have huge departments focused on policy.

For example, there are great regulations these days which protect people's privacy. There are also a lot of conversations happening about adding regulations for user safety. However, privacy at its extreme means that users can be completely anonymous and all data cleared immediately, which is a bad actor's dream come true. In order to keep users safe, platforms need to know who these bad actors are – ideally know as much as possible about them – so they can be banned permanently. Finding the balance between privacy and safety is critical, yet platforms are often caught in the middle and are criticized in both directions at once. We need to have these conversations holistically and make sure to include the folks who will be enforcing these policies and making the real-life decisions.

My team and I published a <u>white paper</u> in the hopes of sharing information freely, but it's been fairly hard to get the word out to the right people. Groups like All Tech Is Human are wonderful resources for sharing information across disciplines and technology sectors, and I hope to see more like this in the future.

> "We need to have more conversations across disciplines and share best practices openly. I see a lot of conversations among academics and those in the nonprofit sector about the evils of social media, but not a lot of engagement with those in the industry who are actually trying to run community operations such as content moderation."
>
> **-Alice Hunsberger, Senior Director of Customer Experience, Grindr**

Tazin Khan

Founder, Cyber Collective

Tell us about your current role:

I founded and run Cyber Collective, a Bangladeshi-Muslim-Immigrant-owned cyber security, privacy, and tech ethics educational organization.

In your opinion, what does a healthy relationship with technology look like?

Moderation and boundaries! That's my motto for most things in life, and I like to apply that to how I interact with technology, too.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

I would define it as THE ANSWER WE NEED! Ha!

HX is an interdisciplinary approach (interdisciplinary means folks from various academic and professional backgrounds draw knowledge from each other's work) rooted in lived experiences and narrative sharing to discuss how humans interact and identify with their relationship with technology.

What has been your journey into the Responsible Tech movement and HX?

My journey into the Responsible Tech movement has been layered, considering my profession as a cyber security specialist, my lived experiences, and the challenges I personally faced/face as a melanated Bangladeshi-Muslim-Immigrant.

I experienced not being recognized by facial recognition tech because of the pigment of my skin, being forced to pay extra fees to use laser hair removal tech that "worked better for darker skin tones" – these are just two examples from a lifetime of biased and hurtful experiences.

What truly pushed me into this movement, however, was when I fully understood the impact of the data ecosystem and how marginalized communities (specifically ones I represent and am a part of) were impacted. Not to mention seeing first-hand the lack of education and awareness that exists to help people understand how their habits and actions on the internet impact their real lives. Between my own experiences and my understanding of the harmful data aggregation and distribution practices, the straw that truly broke the camel's back was when my Baba (father), a freedom fighter, hard worker and honest man, called me. He was frantic about his Facebook account getting hacked. Once I calmed him down, I guided him through the steps he needed to take to recover his account and protect his other accounts from being impacted. One particular suggestion I made was to call his banks and change the answers to his security questions. I specifically told him to lie.

He responded so sincerely and said, "Baby how will the bank allow that? They have my information, I cannot lie to them." My heart burst when he said that – my sweet Baba, so obedient to the systems in place, thought if he didn't give honest and real answers, he would be penalized. I realized the deep misconceptions my father had about his relationship with technology and surmised that he couldn't possibly be alone in this experience. I know I had to do something to protect the millions of people that perhaps have the same thoughts as Baba. In retrospect, I believe it was at that very moment I stepped into my calling and purpose within the Responsible Tech movement. That next day, I founded Cyber Collective, a nonprofit organization dedicated to empowering people to think critically about their relationship with technology while helping them become more private

and secure online.

How would you describe your own relationship with technology?

An ebb and flow.

What organizations are doing valuable work toward improving our tech future which you admire?

All Tech Is Human :) AI For Anyone, Unfinished, The MarkUp, UCLA's Center for Critical Internet Inquiry, the Oxford Institute, Mozilla Foundation, Algorithmic Justice League, Glitch UK

What individuals are doing inspiring work toward improving our tech future?

Dr. Safiya Noble, Dr. Rumman Chowdhury, Nabiha Syed, Dr. Jessie Daniels, Matt Mitchel (Ford Foundation Fellow), Ruha Benjamin, Divya Siddharth, Douglas Rushkoff, Alison McCauley... to name a few!

What needs to be done, added and/or eliminated to foster cultures that value human capital amid the growing use and impact of technology?innovation in responsible tech to shape a better, more equitable HX for all? How do we (all of us, across all sectors) make it so that technology serves people and humanity?

Speaking directly to communities and getting feedback from those most impacted (marginalized folks). The most important part of this experience, though, is ensuring that those giving feedback are armed with the right education and awareness so they can come to their own conclusions. The education marginalized peoples receive should be in language they understand, in spaces where they are free to show up as themselves (no code switching) and from people who share their lived experiences. By doing this, we will naturally create more participatory governance opportunities for all, in turn allowing humans impacted by technology a space to give feedback about technology. I believe in this method deeply, essentially the work my org Cyber Collective has set out to accomplish!

What can we do to incentivize businesses to bake HX (safety, privacy, data security, equity, user care, etc.) into product design?

It all depends on the industry and organization we're talking to. I don't believe there's a blanket program or incentive that can be applied to all businesses. Frankly, I think our "one size fits all" approach to regulation has impacted a lot of the gaps we see today, when it comes to safety, privacy, data security, equity, and user care. While government regulations, compliance metrics and fines can help move folks in the right direction, that method unfortunately doesn't evoke the emotional alignment and care we need from product designers. I am not sure I have an answer to this, but this is something I think about daily in my work.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

What's kept me optimistic has been the enthusiasm from the people around me about technology and folks in our industry who genuinely care for the betterment of humanity and our future. There are countless organizations and folks dedicated to this work, and I do not doubt that their contributions will impact society at large. Additionally, seeing my creative friends get excited about the metaverse, my neuroscience homies jazzed about leveraging blockchain in their research, and people like my immigrant father and mother happy that they can use platforms like Facebook to keep in contact with all of their family and friends back home has reenergized me around the "good" tech truly has.

> "What's kept me optimistic has been the enthusiasm from the people around me about technology and folks in our industry who genuinely care for the betterment of humanity and our future. There are countless organizations and folks dedicated to this work, and I do not doubt that their contributions will impact society at large."
>
> **-Tazin Khan, Founder, Cyber Collective**

Niobe Way

Professor of Psychology, NYU and Co-founder of Agapi

Tell us about your current role:

I am the co-founder, with Hiro Yoshikawa, of Agapi, an audio/video AI-driven game to enhance human connection. We are facing a global crisis of connection, in which people are increasingly disconnected from themselves and each other, the consequences of which are rising rates of self-directed and other-directed violence. Our focus as a society should be on addressing this crisis in order to create a more just and humane world. As a researcher of human development over the past 25 years, I have developed a technique of one-on-one interviewing that fosters interpersonal curiosity, listening skills, and has been empirically

proven to enhance feelings of self-worth, belonging, connection, and a sense of a common humanity. My colleagues and I have turned this method into a game that we are currently developing into an app. We are also developing modules to train emerging leaders in our method that will be integrated in an existing global executive education company.

In your opinion, what does a healthy relationship with technology look like?

Rather than technology and the leaders in technology being in the driver's seat, we the people need to be at the steering wheel. Given the global crisis of connection, we need

to create technology that fosters the skills necessary to form close connections at home, school, and in the workplace. Currently, social media is a me media ("I am so sexy, talented, and/or funny"). We can turn social media into a we media that offers different ways to engage with each other so that our connections are deepened and we feel listened to by others.

Offering spaces for people to come together on group chats isn't enough as often those spaces are not about listening to and learning from one another but simply waiting your turn until you can offer your insight. The way "Sesame Street" used television in the 1960s to teach children the alphabet, we can use technology to teach people the basic social and emotional skills necessary for human connection. In addition, AI can be used to help us build human-to-human connection rather than simply have it used to replace humans.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

We need to use technology to help humans connect to other humans. A majority of people in the U.S. do not feel seen or heard, and feel like they do not have the deep connections that they want and need to thrive. Technology can help by offering creative and innovative ways of teaching social and emotional skills to children, teenagers, and adults so that they can build and maintain mutually supportive and meaningful friendships and communities. Such skills also need to be taught to emerging and current leaders so that the workplace becomes a less alienating space and one in which diverse voices are valued and heard.

What has been your journey into the Responsible Tech movement and HX?

I have been a researcher and professor in the field of human development for over 25 years. As part of my role as a researcher and teacher, I have been examining and teaching social and emotional development among adolescents and young adults in the U.S. and in China. My main research finding has been that people across race, class, and gender in the U.S. and China are

experiencing a crisis of connection, and this crisis is the root of most of our societal problems (e.g., violence, hate crimes, partisan divides).

The crisis is the result of the fact that our human nature, which is deeply empathic and relational (as well as the more negative qualities), is out of sync with our me, me, me focused culture. Furthermore we hold stereotypes of each other that are dehumanizing and are not based in empirical fact. Thus, we need to create a culture that better aligns with our nature, and technology can help us do that. In fact, technology is a large part of the way we can realign our culture so that it helps us find what we want the most, which is each other. My research is the motivation for my development of Agapi.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

I would agree but it's not the central problem. I would say the central problem is that we think only a focus on the me or the individual is going to be profitable. I think there is a very profitable future in the "we" focused technology. However, it is not corporate profit necessarily but everyday people profit not only in terms of their mental and physical health but also materially.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

Make a tech future that prioritizes the needs of the people, which is to be more deeply connected to ourselves and each other and our common humanity.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

That information from social psychology reflects a common stereotype about humans that simply isn't true. There are lots of examples of positive uses of tech. Texting, emojis, meditation apps, physical health apps, are all examples of positive uses of tech.

How can we design business models that profit by prioritizing humanity?

By understanding that by addressing the needs of humanity (for connection to self and others), you create better business models. Happier and more connected people are happier in the workplace and at home and thus are more likely to stay with their jobs, as well as have the necessary skills to be a great leader.

How can we share information and best practices so that smaller platforms and startups can create ethical and human-centered systems at the design stage?

Developmental psychology researchers need to be included in this conversation. Social psychology researchers are often included. However, developmental psychology researchers know more about the needs of humans than social psychologists (who focus on patterns of behavior but don't focus on what humans need to thrive).

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

Because we are human. Humans have remarkable social and emotional capacities. Let's embrace them rather than mock them.

> "Currently, social media is a me media ("I am so sexy, talented, and/or funny"). We can turn social media into a we media that offers different ways to engage with each other so that our connections are deepened and we feel listened to by others."
>
> **-Niobe Way, Professor of Psychology, NYU and Co-founder of Agapi**

Harini Sridar

University Student, Headstream Youth Leader

Tell us about your current personal and academic interests:

I am a sophomore at University of California, San Diego, majoring in neurobiology. Academically, I am fascinated by the space where the brain, emotion, and the human condition intersect. I love learning about how our environment mentally shapes who we are and who we become, and in this day and age, there is an additional digital environment that must be taken into consideration. Personally, my interests have to do with unbound self-expression, whether that be sculpting, painting, poetry, dance, baking, or even mastering the art of a good conversation. I like to think that I subconsciously found myself

immersed in such creative pursuits in my free time due to the lack of artistic liberties I have academically.

In your opinion, what does a healthy relationship with technology look like?

To me, a healthy relationship with technology is not losing yourself in it, but finding yourself in it. It is the subtle balance of using it for inspiration rather than comparison. The beauty of technology today is that there is almost endless access to content that can help further your journey to becoming who you want to be and having the skills you want to have. This is, however, a double-edged sword, because there

are also nearly endless unrealistic expectations, beauty standards and a lack of representation that can make anyone feel inferior to the world around them. Using technology as a resource to become your best self rather than judge and compare yourself to others seems to me like the healthiest way to interact with it.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Today, the impact that technology has on a person versus the impact that other environmental factors have is nearly indistinguishable. This is due to the unprecedented integration of the real world with the digital world.

HX is a concept that is finally able to isolate people's emotional response to technology specifically. It is similar to UX but refers to the entirety of a person's physical and emotional response to being in digital spaces, rather than just a user's experience on an application. I don't think it is quantifiable, because it is, as it states, so relative to each human's experience, but I do think defining it will allow many people to understand the true advantages and disadvantages of using technology the way they do.

Do the parents and teachers in your life generally understand how you use tech and, if not, what would you tell them they need to know about it?

My parents like to attribute any problems I experience to technology. Whether it be a lack of motivation, a stomach ache or even a rash, they find some way to connect it back to "using that phone too much." What I wish they understood is that I connect with my friends, make new friends, do schoolwork, pin recipes, send memes, read articles and plan my life on that phone. There seems to be a fundamental disconnect generationally because, from my perspective, if I have the wealth of the internet at my fingertips, I want to take advantage of it as much as possible.

Having a life in digital spaces does not take away from my life in the real world. If anything, it adds to it. It makes me a more informed person and makes it easier to figure out who I want to be, and how to become that person.

What makes you optimistic that we, as a

society, can build a tech future aligned with our human values?

I think the future of tech is the future of the world, and that future will make huge moves in the right direction when the industry realizes how much digital spaces impact youth. We are growing up on these platforms. It isn't just about a profit anymore, it is about empowering the next generation to make the world a better place. Small safety issues in digital platforms can not be overlooked because these platforms are raising young people. Allowing a technological future that is known for housing hate and negativity will manifest that same hate and negativity within youth and will persist until adulthood. It isn't about "users" but children, people and real lives.

> "To me, a healthy relationship with technology is not losing yourself in it, but finding yourself in it. It is the subtle balance of using it for inspiration rather than comparison."
>
> **-Harini Sridar, University Student, Headstream Youth Leader**

Parker Miles

PhD. Candidate, U. of Michigan

Tell us about your current role:

PhD Candidate at the intersection of education and digital studies. I'm studying the interaction between online and offline life for Black kids. It's my argument that the two realms are mutually constitutive, recursive, imbricated, and that privileging this ontological fact opens up potential for kids to be taught – and to teach us – the tech skills and perspectives that can help us stave off the end of the world. I use Legacy Russell's "glitch," Donna Haraway's "cyborg," and the methodologies of Afrofuturism to animate and communicate these ideas.

In your opinion, what does a healthy relationship with technology look like?

I think, fundamentally, a healthy relationship to technology is a critical one, one that lives in the space between what is possible with technology and how corporate interests prefer we use technology – as data farms. I think we have to learn to use technology outside of the strictures of the app store; a healthy relationship to technology crafts tool use and behaviors to our human needs, not the other way around.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Human experience is a way of conceptualizing the increasingly blurred lines between online and offline in a manner that privileges how the tech can be trained to better support users (as opposed to the opposite, which characterized the 20th and early 21st century approaches). A step further than UX, HX takes a more critical lens, attending to how power, access, and identity influence how people use technology. A vital part of HX in my research is how kids make sense of technology, how they imagine it, and, in contexts of use, how they experience technology and discourses around it.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

I agree with that statement but would point out that SNS platforms are just doing what their ecosystem allows and rewards. There needs to be human-centered design of law, policy, and regulation of capitalism more broadly in order for platforms to make that change on their own. This is the one thing about which I'm pessimistic.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

Two things make me optimistic, in parallel. First, more and more folks, millennial and younger, with critical and optimistic perspectives on technology are entering decision-making phases of their careers. I believe that we can shift the "overton window" of technology and implement policy that protects people and encourages the kind of innovation it will take to save humanity. Second, and corollary, youth already have the necessary predilections to use technology in non-approved ways; I'm optimistic that with a little digital media literacy and technology tools training, these youth will disrupt the profit motive and create new and real worlds of possibility.

Farah Lalani

Community Lead, Global Coalition for Digital Safety, World Economic Forum

Tell us about your current role:

I am currently leading the Global Coalition for Digital Safety at the World Economic Forum, which is a multistakeholder coalition to drive public-private cooperation in improving online safety. I work with leaders across government, business, academic, and civil society, including Google, TikTok, Meta, Microsoft, Australia, the UK, Singapore, Indonesia, UNICEF, Internet Watch Foundation, INTERPOL, and many other organizations to develop solutions for tackling harmful activity online. My work is focused on addressing specific content areas, including child sexual abuse and exploitation material, violent extremist and terrorist content, and health misinformation online.

In your opinion, what does a healthy relationship with technology look like?

I believe a healthy relationship with technology is characterized by:

1. The level of ease to make individual choices: I believe the ease with which an individual can make choices that improve their well-being when using a product or service is fundamental to a healthy relationship with technology. As just one simple example, how easy is it for an individual to change their notification settings if they are feeling inundated with messages on their account? Or how easy is it for an individual to block or report someone who is harassing him/her?

2. The right balance between frictionless and safe experiences: While technology should make things easier, it also needs to have built-in safeguards that introduce the right level of friction at the right time so people have an opportunity to think twice about what they say or do to others online.

3. The ability to enhance human connection: Technology should be used to enhance human connections by making it easier to make new connections or strengthen existing connections. A healthy relationship with technology is one where the use of technology enables us to be more of who we already are or what we already want as human beings.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

In my opinion, those in power making the choices about how technology is designed and how users engage with it need to have a real business incentive for making *healthy* choices. This means advertisers, investors, regulators, and others need to require it in order to compete effectively in the market for new technology-driven products and services. For example, are venture capital firms requiring human-centric and safety-by-design assessments before providing funding to start-up companies? Until this is embedded into the technology investment ecosystem, it is unlikely to change how technology is designed and unlikely to prioritize safety built into products from the get-go.

In addition, there needs to be a competitive technology ecosystem where consumers have a diversity of choices; companies will need to design with people and safety in mind or risk losing customers to a competitor. The key is ensuring that market dynamics enable consumers to have this choice and ensure that competition can thrive.

What has been your journey into the Responsible Tech movement and HX?

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For me, this started with assessing the responsibility of platforms based on addressing risks of harmful content, such as violent extremist and terrorist content, child sexual abuse and exploitation material, and other such illegal and harmful content online. As these areas of harm have been proliferating, even with large tech companies attempting to rein them in, it is an area that showcases the complexity and commensurate importance of responsible decisions when it comes to content, contact, and conduct online. It is pretty clear that there isn't a single solution to this problem, but that addressing these issues will require a mix of policy, product, process, and other such interventions, with elements such as human experience, safety by design, and other considerations taken into account more proactively.

How would you describe your own relationship with technology?

I grew up using technology at a very early age, mostly for educational and entertainment purposes. I embrace new technologies but do so cautiously and at a pace I am comfortable with – I haven't purchased an NFT yet, for example, but am watching this space with much curiosity! It is fascinating to see the pace of change with technology, and I think it is great, but I do hope that safeguards (whether through regulation or other means) can start to catch up.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

I don't think it is as straightforward as this but let me start off by saying that I think as a for-profit industry, social media platforms of course function differently than if all these companies were non-profit. This is not inherently good or bad in and of itself. In order to keep users and advertisers happy, platforms are incentivized to remove harmful content and keep people safe on their sites. But to what degree or extent is this the case – is it enough?

I do think part of the issue is structural or systemic, where prioritization of growth and other factors is often implicit rather than explicit in decision-making. While I believe platforms have an incentive to keep users safe, do they have enough of an incentive, given current legal and structural constructs to invest as much as is needed to improve safety globally, across multiple languages and regions? I believe until there are international standards for online safety, this will continue to be an issue in various pockets across the world.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

I think the ideal tech future allows for maximizing human potential and focusing on areas that we want while enabling technology to do the rest in a safe, effective, and ethical manner. I think the biggest component of an ideal tech future would be centered on a fair value exchange, where those who create the most value for consumers should achieve gains accordingly and where power is democratized so that customers aren't "stuck" with one company to be part of and can play in a larger market.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

This is no surprise, but I think through the pandemic, even more so than before, we have seen the value of digital tech and connected media for keeping in touch and building communities. Whether that is Zoom baby showers, Instagram Lives, or FaceTime video calls, these technologies have been a lifeline to keeping in touch with friends and family, even when that was physically impossible.

The other main positive I see from digital tech is knowledge creation and sharing. Online learning has enabled schools to continue educating children, but it has also helped those who needed to re-skill themselves and change career paths.

Lastly, I believe that self-expression and entrepreneurship will be able to flourish through growth in the creator economy powered by trends toward digital asset ownership, new content within immersive experiences, and the like.

What organizations are doing valuable work toward improving our tech future which you admire?

Many organizations that are part of the Forum's Global Coalition for Digital Safety. There are also many smaller safety tech organizations that are working on solutions to tackle harmful content and activity online and companies that work behind the scenes to moderate platforms which do not get enough positive attention.

If one person's free speech is another's harm and content moderation can never be perfect, what will it take to optimize human and algorithmic content moderation for tech users as well as policymakers? What steps are needed for optimal content moderation?

I don't think there is one optimal solution; different platforms or spaces online, depending on their audience, virality, purpose, etc., can have different content, and that is ok. What isn't ok is not having a minimum standard, agreed upon principles of how safety or content moderation decisions should be made, and being accountable to no one. I think there is also much to do to advance shared vocabulary and make content taxonomies more consistent and standardized so that we can start to establish a common baseline. I think the steps that are needed to improve content moderation are to

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ensure that sufficient content moderation capabilities are implemented across regions, languages, and other such dimensions. I think establishing what is sufficient and what thresholds need to be met is key. Some of this is discussed in the Forum's Report on Advancing Global Digital Safety.

Businesses often think in terms of key performance indicators (KPIs). How can we better define positive, neutral, and negative outcomes in relation to the human-technology experience?

This is very broad, so I will focus on KPIs as it relates to digital safety and users' experiences online, when it comes to their interactions and the content they are exposed to. I think we need to be clearer about who is being reflected in KPIs. I will highlight an excerpt from the Advancing Digital Safety report: *"Today, metrics reported on by platforms, which focus largely on the absolute number of pieces of content removed, do not provide an adequate measure of safety according to a user's experience; improvements in detection or the enforcement of action on harmful content according to platform policies, changes in these policies and categories of measure over time, and actual increases in the harmful content itself are not easily dissected. Even measures such as "prevalence," defined by one product as user views of harmful content as a proportion of all views, does not reflect the important nuance that certain groups – based on their gender, race, ethnicity, and other factors – may be more exposed to harmful content. Generally speaking, whether the large majority of content viewed on platforms is safe does not solve the problem for persons who are vulnerable."*

How can we design business models that profit by prioritizing humanity?

I think we need to start by understanding what societal outcomes we want to achieve and how that fits in with consumer behaviors, willingness to pay, growth and profitability goals. We need to better understand what consumers want, what they are willing to pay for and in what manner they could or want to pay for things (e.g. play-to-earn models). If business models are designed where the customer is willing to pay directly, this is one way to supplement or complement an engagement-driven, ads-based model. When it comes to advertising, I think there is great opportunity for brands to support content, content creators, and publishers that are benefitting society by directing their ad dollars responsibly and supporting platforms and others in the media ecosystem who they feel are benefitting all of humanity.

How can we share information and best practices so that smaller platforms and startups can create ethical and human-centered systems at the design stage?

This is already happening to some extent in various ways through industry initiatives (e.g. to tackle terrorist content online, there is the Global Internet Forum to Counter Terrorism) and government initiatives (e.g. Australia's eSafety Commissioner has created Safety by Design resources for various sizes of companies). In addition, it would help to provide small companies free membership in various associations that focus on best practices for ethical and human-centered systems as well as trust and safety practices, such as the TSPA and DTSP. The Forum's Global Coalition for Digital Safety also has smaller and/or relatively newer companies such as ActiveFence, Spectrum Labs, and others together in the same "room" with larger players and sharing best practices amongst the entire industry ecosystem.

Can laws or regulation help foster HX without restricting speech and participation? If so, how? What regulation are you looking for?

Yes, there are many other areas of our lives where laws and government interventions have made things better with minimal restrictions to freedoms. Requiring various licenses to operate different types of vehicles, road rules, safety standards for food and drugs, identity verification to be able to check into a hotel, these are all examples of government requirements that help improve safety whilst minimally interfering with personal freedoms. Laws that better hold people accountable for their behaviors online, such as laws against online harassment, cyberflashing, sharing of intimate images and other harms are examples of regulations that would bring a similar level of accountability online as there is for these behaviors offline.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?
I am optimistic, given how many smart, driven people are working to build a tech future aligned with our human values – I have met many of them throughout my work and I am optimistic that more people will join this growing group of people across the public and private sectors, committed to building tech safely and responsibly.

> "In my opinion, those in power making the choices about how technology is designed and how users engage with it need to have a real business incentive for making healthy choices. This means advertisers, investors, regulators, and others need to require it in order to compete effectively in the market for new technology-driven products and services."
>
> **-Farah Lalani, Community Lead, Global Coalition for Digital Safety, World Economic Forum**

Ivy Mahsciao

Founder + CEO of evrmore

Tell us about your current role:

My role as the founder at evrmore is to be a consistent driving force for digital wellness with equity and cultural fluency in mind. I'm building solutions that help people minimize unhealthy socialization online and to bypass the shadows that emerging tech casts in long-term life quality and betterment.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

I think before we can talk about an approach we need to first understand our current viewpoint. We're never just using something (as a user). There's always an interaction and a degree of integration. It's a useful reminder to think about technology like food. We don't just use food as nutrients and energy; the food we consume actually becomes a part of us and changes our cellular functions and our body composition.

Technology is no different in that we don't merely just consume technology. What we let perpetuate in our every digital interaction can indeed become either a generative source of energy or a detriment and deficiency for our health. Each digital interaction we have with a piece of tech can have profound changes to our cognitive and psychological functions, as well as our autobiographical composition (your sense of self across space and time). Is your tech diet rich in mental nourishment? Is it nurturing you emotionally or intellectually? Is it interacting with other types of tech in a way that depletes your wellbeing? I believe these are great inflection points for us to understand how to improve our human experience that's now inextricably digital.

What has been your journey into the Responsible Tech movement and HX?

I have a product design background with a focus in UX and behavioral research. I've spent my entire career trying to understand the psychology behind the paths people take to make certain choices in various interactive experiences — the digital psychology that could influence decisions people make, or potentially change the course of people's lives. When you start to think about how those momentary choices could add up to become remarkably meaningful augmentation to someone's way of being, you start to take seriously the design principles you deploy and ethical underpinnings.

My journey into responsible and ethical tech started to take on even more discipline and structure when I began building my mindtech company. For the last two years I've been following an ethically aligned framework to build solutions that help people train their mind against the potential harmful effects of tech. I believe it all starts with having a common language and protocols for us to build responsibly, so this Responsible Tech movement is more than a motto — It's also a code of conduct.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

There's a popular quote known among sci-fi and tech nerds (present company included): "Any sufficiently advanced technology is indistinguishable from

Continued on next page

magic" (Arthur C. Clarke). We could definitely also say "magic" and "nature" are interchangeable in sentiment and in practice to enact that quote. If we just focus on the two key things that help information travel via technology, it would be compression and virality. Both of these qualities occur in nature, and both certainly seem magical when we experience them. Compression is great for streaming content, it also makes memes relatable and repeatable. And we all know what happens when something goes viral. Technologies that use game theory and are amplified using those rules grounded in nature are wonderful examples where they create a sense of awe (Loona), empower creativity (all the games we like to play), and activate random acts of kindness (Be My Eyes).

> "I think before we can talk about an approach we need to first understand our current viewpoint. We're never just using something (as a user). There's always an interaction and a degree of integration."
>
> **-Ivy Mahsciao, Founder + CEO of evrmore**

Vicki Harrison

MSW, Program Director, Stanford Psychiatry Center for Youth Mental Health & Wellbeing

Tell us about your current role:

I am currently Program Director for the Center for Youth Mental Health & Wellbeing in Stanford University's Department of Psychiatry and Behavioral Sciences. Our Center builds programs, interventions and partnerships to support youth aged 12-25, with a focus on prevention and early intervention. Programmatic areas span school mental health, Native American youth, early psychosis, suicide prevention, mental health screening, media and mental health, and allcove – a new network of one-stop-shop integrated mental health centers for youth. A highlight of my role is the ability to engage directly with young people as co-designers

of our programs and activities, letting them take the lead as subject matter experts in their own experience.

Through our Media and Mental Health Initiative, we endeavor to improve the impact of all forms of media (news, entertainment, and social) on mental health. We partner directly with journalists, suicide prevention organizations, entertainment media producers, and the technology industry to encourage healthy, accurate media portrayals and policies that inspire hope, recovery and help-seeking and to minimize harm.

Our #goodforMEdia project is a peer-mentoring platform led by

older teens and young adults to mentor and share their personal social media experiences with younger children and teens to support healthy engagement with social media. For the past two years, I have also served as a member of the TikTok Content Advisory Council.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Although not well applied to the social media industry to date, human-centered design is something that has existed for some time. It is a concept I am familiar with from my work on the allcove program – a new US network of integrated youth mental health centers. Nearly every component of allcove was developed with young people – the population allcove centers serve – and their involvement endures through an ongoing youth advisory body – not just a one time consultation. The name, brand identity and user experience were developed through a multi-step, human-centered design process with some of the pioneers in this area at IDEO.org.

As I see it, human-centered or human experience design is a process by which the people we are trying to reach or serve are treated as experts in defining both problems and solutions, often refining the solutions through an iterative process. The core tenet and advantage of this approach is that people are experts on their own needs and experiences and will surface any unintended consequences as well as offer new approaches to make a product more appealing and effective than it would be without their involvement.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

We need to recognize technology is an extension of our physical spaces and thus we need to extend the same degree of civilization, norms, and rules we have governing us in settings like a public plaza, a library, an art museum, a highway, or a school. We need structures, accountability and oversight, with an overriding principle that is centered around the greater good – supporting and benefiting society.

Without such structures in place and enforced in a neighborhood in the physical world, it risks becoming unsafe, dilapidated, and unappealing. We need collective will and action to keep a community thriving and to prevent the blight caused by criminal behavior, poor governance or misinformation.

This means building toward this north star in all steps in the design process and life cycle of a platform or feature. And it calls for directly involving the people the features are designed to serve. Teens and young adults are perhaps the heaviest users of social media, but their voices are underrepresented. We know for a fact that there are many ways in which the most popular platforms fail them. This could be prevented by incorporating them within all stages of development. This, of course, indicates the need for two other important human-centered design strategies: age-appropriate design and safety by design. We need to follow the examples set by Australia around safety and the UK's implementation of a design code that requires deploying developmentally suited features for different age groups.

What has been your journey into the Responsible Tech movement and HX?

I am a public health social worker, with a focus on prevention and wellness. For the past seven years, I have been working in the youth mental health field co-designing prevention programs with youth and young adults. Media and technology play a central role in the lives of youth, so taking stock of how they interact with mental health is essential to any effort to understand the typical experience of youth. Through co-design experiences including hackathons, high school innovation challenges, and conversations with youth about their social media experiences, what I found striking was not just the troubling content and features they were interacting with, but the degree to which one's very presence, image, and quantified values on platforms (likes, follows, comments, etc.) have become a skewed currency of adolescence. Living up to those expectations has created a powerlessness that many of them have come to accept, seeing no socially viable alternatives. I became concerned about the mental health impact of such disempowerment on a large scale, and it made me question why we allow this to be the norm for our youngest and most impressionable people. Why aren't platforms competing to build products that mostly empower, support, and inspire our youth? And why aren't more youth voices being incorporated into product development? In my experience, centering young people in the design of programs intended to serve them is a highly effective and rewarding experience – one that could usher in an exciting new era of product innovation.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

Yes, unfortunately I believe this to be where we find ourselves today. Serving the best interests of people is not the primary goal of today's most popular platforms. They are profit-driven companies responsible to shareholders and driven by advertising revenue. The steps some platforms are taking to try to prevent harms are laudable, but come secondary to the need to sustain a profitable business. Self-governance has not worked well thus far, in part due to it being difficult to stick your neck out and be the first to sacrifice business interests when competitors are not. Establishing a new set of expectations with regulatory backing that prioritize the wellbeing of people engaging on platform will level the playing field so companies are able to do the right thing as a collective industry.

Can laws or regulation help foster HX without restricting speech and participation? If so, how? What regulation are you looking for?

With so little regulation currently in place, it can make even the suggestion of any new limits feel restrictive. But our status quo is riddled with flaws and increasingly toxic. Effective improvements can be implemented that still provide a wide berth for creative expression and innovation. We need to establish a new baseline. If standards are raised at an industry level, it will offer an opportunity to reset and reinvent our social media ecosystem so that it serves each of us and protects those most at risk without the current inequities and harms. Within those wide boundaries, there should still be plenty of room for free speech and expression. Some of the regulatory actions I think we need in order to get there include an effective system for age verification so experiences can be more developmentally targeted and appropriate, safety and privacy design standards, limits on advertising and collection of personal data for minors, greater algorithmic and data transparency, more investment in research, media literacy requirements, and increased consequences for harms induced by platforms or by individuals operating on the platforms.

> "We need to recognize technology is an extension of our physical spaces and thus we need to extend the same degree of civilization, norms, and rules we have governing us in settings like a public plaza, a library, an art museum, a highway, or a school. We need structures, accountability and oversight, with an overriding principle that is centered around the greater good — supporting and benefiting society."
>
> **-Vicki Harrison, MSW, Program Director, Stanford Psychiatry Center for Youth Mental Health & Wellbeing**

Akriti Gaur

Resident Fellow, Yale Information Society Project

Tell us about your current role:

I am a Resident Fellow at the Yale Law School Information Society Project. I am a lawyer by training and I research platform governance, privacy, and digital rights in India. At present, I am an LL.M. candidate at the Yale Law School. Previously, I have worked as an independent policy advisor and researcher with Indian technology policy organizations such as Vidhi Centre for Legal Policy, Centre for Communication Governance, National Law University, Delhi, and the AI Policy Exchange.

I'm currently researching alternative models of regulating Big-Tech platforms and addressing online misinformation in India.

What is your vision for a tech future aligned with the human experience?

My vision for a tech future aligned with the human experience involves a complete reset of how Western social media corporations think and behave globally. There is an urgent need to make such corporations, especially social media companies, more responsible and aware of their non-Western markets and governments. Today, social networking products are rolled out by these companies in Global South countries without any consideration about their local or real-time impact on people. Laws and policies are being made by platforms and governments alike almost as an afterthought. Further, socio-cultural sensitivities are completely absent from platform operations and such platforms hide behind regulation to evade global responsibility. We need to make these corporations accountable to every person that they serve, every life that they have harmed, and every community that they impact on a daily basis.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

I would define HX as bridging the gap between fast-paced technologies and the diverse societies that they seek to serve.

A major goal for HX (Human Experience) is to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

There is an urgent need for interdisciplinary collaboration on shared concerns pertaining to the human experience. Conversations among technologists, ethicists, academics, civil society and other experts need to take place through more sustained channels. In my opinion, these conversations also need to be made more accessible to experts and researchers from underrepresented nations and communities.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

This is an exciting time for those interested in solving challenges posed by technology to our society. In a post-pandemic world, platforms for discussing these challenges and working with experts will be more accessible to everyone. Through sustained efforts made by global civil society organizations, the geographical boundaries for collaboration will shrink even further. Hopefully, these developments will give a louder voice to problem-solvers from underrepresented communities and nations.

Laure X. Cast

Founder, GetWith

Tell us about your current role:

I'm the founder of GetWith, a platform for conversations. I'm also on the Aspen Institute Virtually Human Working Group, the board of the Prosocial Design Network, and a participant in a number of communities in product design, product management, and ethics. In addition, I'm a community organizer interested in bringing people together to consider the opportunities to make technology that supports belonging and a sense of significance.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Human Experience feels a bit broad to me! That said, I think human-focused experience design takes into consideration our evolutionary need to belong, co-operate, and find meaning in what we do. It also ideally means we're considering the effects of our own actions on ourselves, on our communities, cultures, and society, and on the ecosystem we live in.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

In order for this to happen, we need a few changes. One, we need more access for diverse voices in the leadership of tech organizations. Two, we need to re-examine the policies and structures that lead to misaligned incentives, particularly in ad-based models, data-selling, and generally in unfettered corporate power. Third, we need to build more thoughtfully, more intentionally, and with more transparency.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

I'm not sure that we can retrofit existing social networks to focus on the needs of the people using the platforms. More broadly, I am not sure that any product with an orientation of public posting to an undefined broad audience can support real human needs. We're relying on a graffiti wall to serve our need for connection.

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

I'd love to see ways to make industry folks feel more free and empowered to have the conversation outside of their teams and companies, without fear of revealing proprietary information or for reprisal from employers. I'd also love to see academics, journalists, and others outside of industry better understand and account for the business needs and drivers within industry, particularly how social products scale and how difficult it is to maintain or support social products that don't scale.

How do we empower and uphold the rights of people using or affected by technology? Are there both individual and collective inputs and, if so, what are they?

The implications of surveillance capitalism are often invisible to users, or unknown until follow-on effects are felt (and the infrastructure is so deep and entrenched that addressing them isn't

easy to reason about). The evidence suggests that people don't think much about trading information about themselves for free entertainment (TikTok gained wide popularity even after we saw how FB/Instagram can be harmful). To start with, there should be more requirements for large scale companies to be transparent. There's also growing inequity in educated vs. non-educated populations that is exacerbated by asymmetric ideas about responsibility in this area. I guess this is all to say, I don't really know and I hope we keep talking about it inclusively.

How can we better use technology to "augment" human intelligence without jeopardizing livelihoods/employment?

We can't anticipate the effects of AI/automation or transhumanism on jobs or livelihoods, other than to be sure that there will be effects. Fundamentally, I'd like to see us avoid trying to replace humans when the need to be met is about human connection, i.e. chatbots, minder robots, or other technologies that serve emotional or communication needs.

> "I'd love to see ways to make industry folks feel more free and empowered to have the conversation outside of their teams and companies, without fear of revealing proprietary information or for reprisal from employers. I'd also love to see academics, journalists, and others outside of industry better understand and account for the business needs and drivers within industry, particularly how social products scale and how difficult it is to maintain or support social products that don't scale."
>
> **-Laure X. Cast, Founder, GetWith**

Waidehi Gokhale

CEO of Soliya

Tell us about your current role:

As the CEO of Soliya, I have the responsibility to set and navigate implementation of our strategy, engagement with our Board, ensuring the wellbeing of the team as well as overall fiduciary responsibility for the organization, which includes all our fundraising efforts.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

Technology stands to play an ever-increasing role in our world: Harnessing it as a vehicle for increasing connection and authentic discourse is a collective responsibility. I think technology gets viewed as a quick fix. If something is broken, let's find a tech solution. In thinking about what that solution is, we need to consider more closely what makes something broken and for whom. The person creating the solution has to understand what is "broken" from the same perspective as the person being impacted by the "brokenness."

Currently, there is a disconnect on this front. It's not just about user experience, it's about what is the core problem we're trying to solve and for whom that feels mismatched. The other concern is misinformation – there is a massive lack of ethical conduct and transparency in the development of technology solutions across all arenas. It could be argued that these two things go hand in hand. If we can come to a place where there is an understanding of technology as a vehicle with utility that enhances wellbeing collectively then we will have moved the needle on a healthier relationship with technology.

How would you describe your own relationship with technology?

Technology was always part of my household, as my father was keenly interested in all things technological. I was much less so. Fast-forward to my second career, and I found myself in an organization that was at the pioneering forefront of using technology as a vehicle to generate thoughtful and meaningful human connection. Before the dawn of ubiquitous video conferencing and overwhelming social media citizenship – this was back in 2003 that they chose to design a technology focused on bringing diverse groups of people together to deliberately engage in provocative conversations under the guidance of trained facilitators. The tech application that was designed and then reiterated on over the years was unique in both its intended function and its interface. I found myself jumping on board with this organization and working as part of a remote, incredibly diverse global team using technology all day, every day, both operationally in terms of being an employee and functionally, in terms of the program delivery. I have been with them now for 14 years.

For me, technology is a means to an end. What I choose to use is fairly deliberate, but there is no doubt that it is increasingly becoming something that intersects all facets of life.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

I do agree with the statement. I don't believe they intended this to be the case from the outset, however, very quickly – once the business model took off and

proved astronomically lucrative – it's impossible to expect the platforms themselves to deviate. They are answerable to too many for whom the profit has become the goal. I'm a little bit cynical in that I don't believe social media can be intended to "bring people together" in any of its current incarnations. So for current platforms, I think beyond a determined commitment to the safety of users – most specifically children – and a more deliberate approach to transparency of process and intention, I don't think there is much to be done. I think social media would have to be reimagined to include a very clear human element into the moderation of interactions if indeed it is to be something that prioritizes people.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

1. When designed and implemented deliberately, technology can truly be used to bring people together to foster genuine and constructive engagement. Technology can enable a limitless number and diversity of people to be brought together for this purpose. When this is done well, it's transformational. The skills built and the seeds sown are the pillars of what will bring about lasting change in how the world engages.

2. In a globalized world, it provides a vital vehicle for families and loved ones to maintain contact and connection with one another. This was surely proven over the past two years as the world grappled with a universal health crisis.

3. Notwithstanding the perils of misinformation and disinformation, there has been a great leveling in terms of how many can access how much in terms of information. If human nature didn't get in the way of progress, we would see that we have actually come a long way on this front - information is not available to just the lucky few, and such a vast cross section of information can be at one's fingertips. If used well, technology can in fact be a very powerful tool for dissemination.

4. Holding hands with science to make tremendous breakthroughs in diagnostics, in delivery of treatment, in radical new approaches and tools for medical use. Again, when done under a framework of ethics and compassion, technology can be a powerful ally for scientific progress.

What organizations are doing valuable work toward improving our tech future which you admire?

Build Up is doing excellent work.

If one person's free speech is another's harm and content moderation can never be perfect, what will it take to optimize human and algorithmic content moderation for tech users as well as policymakers? What steps are needed for optimal content moderation?

Ah the ultimate conundrum…. How to moderate content? If people cannot be trusted to author content with transparency and integrity and consumers cannot be trusted to think critically about what they are reading, then who gets to speak without any limitations? Who doesn't get to speak for whatever reason? And who decides? I think content moderation would optimally be done as a combination of human and machine/algorithmic tactics.

The folks engaged in content moderation should be trained in key practices of critical thinking and multi-cultural insights and communication. This training should be done externally to the entity they work for, otherwise they are moderating content with the agenda of their specific platform. There should be agreed-upon industry standards linked to understood societal agreements on basic ethics of content. AI will only be able to play a partial role in this practice. Even in its most advanced form, an AI database will ultimately struggle with nuance. As such, there needs to be a multi-layered approach to content moderation – recognizing that this will have implications on the speed of content delivery, which in turn will mean that, unless all buy into a methodology, no one platform will take the leap for fear of falling out of the race, as it were. True strides in solving this quagmire of moderation will require meaningful collaboration across the sphere of technology platforms, which may be too tall an order.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

The work we do at Soliya shows me on a daily basis that, if we use technology to create meaningful encounters that foster exchange and learning, more and more people will understand how best to harness technology to bring out the best in us in terms of the kinds of digital and in-person citizens we can be. Technology can enable truly difficult conversations to take place, provided they are well designed and implemented. These conversations in turn can foster a commitment to the practice of dialogue. If we can begin to use the practice of dialogue as the starting point for all design and decision making processes, then perhaps the outcomes will allow us to align our efforts across all sectors with basic human values.

Aliza Kopans

Co-founder of Tech(nically) Politics

Tell us about your current personal and academic interests:

I am a freshman at Brown University (class of '25), currently interested in education studies, environmental studies with a focus on agricultural justice and policy, and Hispanic studies. Since 2019, I have been actively working as a digital wellness youth activist. I am passionate about helping all of us move towards a human – not screen – focused world, and I love connecting with other people in this field. I have become more involved with the intersection of technology and policy, working to create a space for young people in this area. I co-founded Tech(nically) Politics, a movement striving to leverage youth voices so our experiences are taken into account as the U.S. government changes laws regulating online platforms. If I'm not writing essays and reading for classes or working on Tech(nically) Politics, you can find me making art, running, taking long walks with friends, petting strangers' dogs, and scouting out nearby farmer's markets.

In your opinion, what does a healthy relationship with technology look like?

I believe a healthy relationship with technology is centered around balance. Just like most parts of life (work, friendships and relationships, hobbies, etc.), I believe one's tech use can and should be an element that supports overall well-being. I think tech is healthfully used when it helps people create and sustain relationships, find resources they might not otherwise have access to, and learn more about the world around them in a way that feels nourishing and productive. I also think it's important for people to be okay without their screens, to make sure they're engaging with the world and people around them instead of becoming engulfed by clicks and likes. And because a healthy tech relationship is a balancing act, what it looks like is fluid and unique to the individual. As our lives change, our tech use might change as well.

I think it's so important to frequently reflect on our relationship with tech: How is digital technology helpful? Is it positively contributing to my life? How do I feel after spending time on screens? Is it becoming all-consuming or do I feel like I have a healthy online-offline balance? In addition to this reflection, a clear marker of a healthy relationship with tech is adjusting how we engage online to promote overall happiness and wellbeing.

What do you think of when you hear the terms "Responsible Tech" and "HX"?

When I hear "Responsible Tech" and "HX," I think of tech that is both designed and consumed responsibly, with the values behind the tech platform aligning with our values as human beings. I picture a tech company that holds humans in higher regard than profit: keeping in mind how its technical design choices impact its consumers as people, not just users. I also think of people who understand that tech is a public sphere, that our online words and actions have ripple effects and real, often very significant, consequences. For me, Responsible Tech and HX means building and using tech with the goal of supporting our shared humanity.

How would you describe your own relationship with technology?

My relationship with technology is pretty atypical for an 18-year-old. I don't have TikTok, Snapchat, or a personal Instagram account, and years ago I deleted all social media, game, and video apps. My close friends know I often do not immediately respond to text messages and they're not surprised when I call them instead of texting. I value

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screen-free spaces and times: I work to keep my phone away when I'm with friends and during meals, and I take class notes with a pen and paper – computer out of sight. I also avoid using my phone before bed. At home, I put it in my parents' bedroom (a habit since getting my little slide phone in sixth grade) and at school I keep it across the room from my bed. With friends, I prefer to talk or be outside or play games than be on screens. When I'm using devices, whether for schoolwork or fun, I try to regularly check in with myself to make sure I want to be online at that moment.

Despite my dedication to digital wellness, I still sometimes fall into the rabbit hole of digital tech, spending hours mindlessly scrolling when there are countless other things I would much rather be doing. When I notice this happening, I strive to respond with self-compassion and brainstorm future strategies to prevent this pull. I continuously work to make sure my engagement with digital technology feels nourishing and supports my overall wellbeing.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

In my ideal tech future, young people are standing in lunch lines and are … talking to each other. In order to reach a place where digital technology complements our humanity instead of swallowing it, we need changes in policy and the implementation of Digital Wellness school curriculums. When technology is built by billion-dollar companies with the intent of keeping users hooked, there's only so much one individual can do to resist. I believe the most pressing need is for companies to redesign their business models, and I think one of the most effective ways to achieve that is through policy change. Tech has changed so much in recent years and with that growth, there's a need to implement new laws applicable to tech as we know it today. In addition, a nationwide Digital Wellness curriculum that teaches students healthy ways to engage with tech can protect the health of young tech consumers. I hope that teachers create phone-free spaces and encourage the younger generation—and frankly everybody—to relearn how to be comfortable and engaged in the world without their screens. If these changes happen, I believe we'll see much more chatting in lunch lines.

Social psychology tells us negative information is "stickier" than the positive kind, and many societies are experiencing a fairly dark view of tech, so help us surface some positives – what are your top 3-5 positive uses of digital tech and connected media?

Digital technology allows me to stay in contact with people I love. I attended the Mountain School for a semester of high school, and in the absence of phones I developed deep connections with my 44 other classmates from around the country. After our semester ended, I worried about how we would sustain these strong relationships outside of our shared Vermont home. Technology was such a gift: I could FaceTime my roommate in California and text my dormmates in Seattle, Chicago, and New Hampshire, furthering my friendships in a way that would have been impossible to such an extent pre-digital tech. During COVID, online platforms enabled social interactions and I could connect with my friends, grandparents, and other extended family in a time when human contact was dangerous. Tech also amplifies positive social movements, educating people about inequities and empowering individuals to contribute to change. Thanks to digital technology, I learned about and participated in many marches and campaigns in support of issues I care about. Lastly, technology makes academics more easily accessible. When my parents tell me about hours spent in school rummaging through card catalogs and library stacks and suffering hand cramps as they wrote papers, I am immensely grateful to have online databases, academic resources, and typable documents just a click away.

Do the parents and teachers in your life generally understand how you use tech and, if not, what would you tell them they need to know about it?

I feel for adults who are working to support young people in this new digital age, and I think the presence of tech can create additional layers of conflict between youth and adults. Adults often don't understand that tech is an important dimension of being a young person today. And, it seems like parents sometimes forget we would benefit from compassionate adult guidance as we navigate this space, not just well-intended yet frequently overbearing limits. Support around and open conversations about the online world is necessary to help kids develop healthy relationships with their screens. Each young person has a different experience with tech, and I urge parents and teachers to start discussions to learn about their children and students' views on and experiences in digital realms.

My first Digital Wellness project was "Dear Parents," a digital well-being guide from teens to parents addressing how we want to be approached regarding conversations about and limits on our screen time (https://screentimenetwork.org/resource/dear-parents-digital-well-being-resource-teens-parents). As I co-created this resource, I realized the deficit of adult education around kids' tech use. We are all guinea pigs in this digital age: the older generations are figuring out online spheres at the same time as the younger generations. To reduce tensions and build mutual understanding and respect when discussing screen time across a generational gap, Dear Parents includes a conversation guide—encouraging adults to listen with CARE (Curiosity, An Open Mind, Respect, and Empathy) and respond with LOVE (Lots of Questions, Optimism, Validation, and Engagement).

What makes you optimistic that we, as a society, can build a tech future aligned with our human values?

As a young person growing up in tandem with the rapid evolution of digital technology, I think we can capitalize on the quickly changing realm of tech to guide it in a human values-based direction. The newness of the digital era means the future of tech is more malleable: activists, tech designers, and companies can create precedents that will promote the well-being of users. From lawyers to ethicists to designers to students to professors, people of all backgrounds and interests have rallied around the movement for a healthful tech future. It is through this passionate, dedicated community that I believe we will be able to build a tech future aligned with our human values.

Naagma Timakondu

UTD Applied Cognition & Neuroscience Master's Student

In your opinion, what does a healthy relationship with technology look like?

I think a healthy relationship with technology centers around empowerment and is used in harmony with my values and goals. I want to feel good when using technology and have it help me become the person who I want to be. When I use it, I want to feel respected and informed through features of transparency, explainability, fairness, freedom (choice), privacy, and safety. Lastly, I think a healthy relationship includes helping me understand and supplement any shortcomings I may have.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

I think what needs to happen is for organizations and creators to focus on how to empower the human and change the metrics to measure that. I think that the incentives right now are oriented around engagement and promoting almost "dependency" on the solution. Rather, I think what can be really powerful is to measure by seeing if we are helping people, society, and the planet meet the vision we want? Do people have the information and actually understand what's going on to make an informed decision or choice? Do people FEEL good and healthy (sustainably) when using our product or service? I think metrics to quantify the answers to those questions is a powerful step from the crude metrics of optimizing for SEO and engagement.

What has been your journey into the Responsible Tech movement and HX?

At the start of 2020, I was fortunate to join the IBM AI Ethics Project Office which supported the internal IBM AI Ethics Board. Through this experience, I was exposed to different domains and lenses to look at and understand responsible tech and ethics. I was especially fascinated by the design work being done to advocate for the human experience within the product and solution. Through this work, I found parallels with my beloved undergraduate degree of cognitive science. I am now pursuing a graduate degree in applied cognition and neuroscience with the mission of using the insights and tools of cognitive science to design human centric, ethics-based technology.

How would you describe your own relationship with technology?

Love-hate! I am constantly amazed by all the wonderful things technology can bring into my life and am always seeking ways to use it to live a life aligned with my values and goals. For example, it is amazing that I am able to take yoga classes on YouTube (shout out to Yoga with Adriene!) or video chat with my family across the world! However, I've also had days where I am very frustrated because I wasted many hours just purposelessly scrolling through social media or been on the phone for a very long time where a customer service bot is trying to solve my problem with no resolution. Since becoming aware of the dark side of technology, I've also become skeptical and conscious that the app or service I am using may not be intended to help me or have my best interests in mind. In some ways, I've found myself taking refuge in some analog tools like a paper planner I can safely trust over hefty powerful digital tools.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are

experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

- Connection – keeping loved and dear ones who are far close through messaging or video chat; being able to meet and maintain friendships through shared communities

- Information – being able to navigate to anywhere using map services; teachers and instructors being able to post educational courses and videos online; exploring ideas and new concepts easily; choice in the content that you choose to consume

- Opportunity – finding jobs or programs online, especially those that might not be near where you physically are; signing up for classes or scheduling vacations; tapping into a larger consumer market for businesses

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

That this report is being published and the number of people working on these issues and problems! I've been exposed to conversations held at all levels, whether it's people discussing the news headlines and demanding change from tech companies or governments tapping into experts from all disciplines to determine the best strategy for their citizens. I also think more and more organizations are taking note that trustworthy and responsible implementation of technology that respects people, communities, and the planet is necessary for a successful and sustainable business. I do think we should discern what is actually effective versus performative, but generally the number of people from the number of disciplines coming together to solve these problems is what keeps me optimistic!

> " I want to feel good when using technology and have it help me become the person who I want to be. When I use it, I want to feel respected and informed through features of transparency, explainability, fairness, freedom (choice), privacy, and safety."
>
> **-Naagma Timakondu, UTD Applied Cognition & Neuroscience Master's Student**

Hannes Bend

CEO and Founder of breathing.ai

Tell us about your current role:

I am the founder and CEO of the digital health startup breathing.ai. We are a team of designers, researchers, artists and engineers developing relaxing and adaptive screen experiences to reduce stress and improve performance. Our company values are the 6 C'eeds to grow: Compassion (actions to reduce suffering and improve happiness); Community (collaborating and communicating to create a unified consensus); Candor (directly, kindly and accurately telling the truth); Commitment to Cause (acting to serve and scale the cause of the company to improve happiness); Create Value (win-win-win profitable services, products and dynamics); and Curiosity (scientific research and fact-based insights).

My role is to create a company culture and products centered around these values. My team is presenting our work at science conferences and publishing papers on our research and development.

In your opinion, what does a healthy relationship with technology look like?

A healthy relationship means technological devices addressing the holistic human needs, wants, skills, and capacities to improve wellbeing and performance. From the human side, it means not developing addictive behaviors such as constantly clicking or looking at a screen. As humans with a physical body, we are used to dynamic living situations and adaptive environments, for instance by exchanging oxygen and more in every given moment. While using technologies, this natural interactivity is not at play. The technologies currently do not adapt to our wellbeing. A healthy relationship integrates the wellbeing of each human. Healthy relationships are also mutually beneficial and not resulting in stress (eye strain, neck pain, shallow breath, mental exhaustion) as is often the case currently.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

Human Experience is the field of exploring humane behaviors and lifestyles to improve happiness, including the research and development of technologies, products, services and communities.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

The shift from an "object" as the user experiencing a product, system or service to a human being recognized and interacted with as a holistic sentient being with feelings, goals, intentions, wants and needs needs to happen. It is not only a shift of perspective but a paradigm shift. Therefore it does not align with business models driven by profit only, but with business models and approaches highlighting the humanity of each being interacting with the technologies for instance.

The paradigm shift requires a collective effort and support of each member in the community, and it opens up a vast opportunity for research and development. Big tech companies have taken many efforts to present themselves as focused on wellbeing. But the goals of the companies are to drive maximum profit. This generates the opportunities for smaller companies, communities and organizations to present a compelling alternative that is aligned with the human needs and wants.

What has been your journey into the

Responsible Tech movement and HX?

I started the project "metaverses/mYnd" in 2014 when I was awarded a grant by the University of Oregon and Oregon Arts Commission. From 2014 to 2016, I was visiting scholar and artist-in-residence at the Institute of Neuroscience and Quantum and Nanoscale Physics Alemán Lab at the University of Oregon for the project merging neuroscience research on visual stimuli and meditation practices, art, psychology and biology. I worked with more than 20 researchers such as Dr. Michael Posner, Dr. Ed Vogel and his lab, Benjamín Alemàn, among many others. Together with Computer Science researchers, we developed the first VR heart rate biofeedback project around mindfulness. We published the paper "Mindful Technologies – research and developments in science and arts" and it won "Best Presentation Award" in the panel "Well-Being Computing: AI meets Health and Happiness Science" at the Association for the Advancement of Artificial Intelligence (AAAI) Spring Symposia at Stanford University in 2016. My next team developed the first breathing biofeedback project merging bio-adaptive technologies, ocean advocacy and gaming with the project "SEAing Breath" presented at multiple museums from 2017 to 2018, part of the "SEA LEVEL RISE Public Art Program" by Miami-Dade County and University of Miami. I personally transformed my life from decades of depression using yoga, meditation and breathwork to live a happy and healthy life. I then wanted to simplify and scale mindfulness, and make such "mindful technologies" more accessible and adaptive to the human mind-body.

How would you describe your own relationship with technology?

I am struggling with how one-sided the technological interactions are. Once I am on the screen, I can sense my breathing becoming more shallow and body more tense. I feel it is because the screen and technologies are not adapting to my wellbeing. When I am with other humans, we can read each other's comfort levels and body language and adapt our behavior momentarily. I believe it is best to remind myself to breathe deeper, relax my body, improve posture and use screen color filters and soothing sounds while on the screens. I also try to limit any use of social media or other sites that are not for a humane purpose – to either make myself or other people feel happier.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

I think we as humans were not used to such a global and fast-paced communication and economy when the first social media platforms and scalable technological interfaces were developed. So the individuals and communities developing them, the engineers, UX researchers and designers and business professionals, had mindsets that were rooted in supporting themselves and their immediate community. Because that was their life experience so far, and the "users" of the developed technologies were not visible to them, making empathy and compassion was hard. The builders of such technologies and companies have been showing us a "profit first" mindset. To develop a different community and technological development, we need to build stronger, scalable, accountable and transparent communities and methodologies.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

I believe future technologies need to recognize the human as a holistic sentient being and the design and interfaces need to address the human needs and wants. Creating communities, accountability for data privacy and transparency, novel technologies and a highly efficient approach that is easily scalable and adaptive are important.

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

Holistic and collective approaches rely on shared communication, compassion and collaboration. Unifying and consensus are not easy to achieve, and selecting and developing a process around these could be top priorities. Focusing on collaboration over competition and compassion over competition can set a tone on how to interact with one another. I have found shared values on creating humane technologies a highly motivating factor in collaborating. The already global HX network offers a unique opportunity to inspire and inform each other, to collaborate and co-create. Ensuring a fast and efficient process is in place is also important.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

My top five are:

- Collaborating with people all over the world in a more interactive and collaborative way by sharing more than text-based communication, for instance with video and audio

- Learning about the world, especially science, news, collectively shared and personal opinions

- Connecting and communicating with peers in the digital health space and people in general

- Practicing, for instance, newly discovered helpful mindfulness techniques online with guided experts, and to learn about not yet significantly studied practices that have been helping many people already

- Seeing I am not alone in facing the also challenging aspects of life, and getting informed how others are coping with life's challenges all over the world

How do we empower and uphold the rights of people using or affected by technology? Are there both individual and collective inputs and, if so, what are they?

If companies can legally extract and use personal information and data without specific consent, it would be great to have more labeling and public communication about which companies are dealing with data in such a manner. Maybe a group of organizations that research and inform the public collectively? A panel, similar to the International Criminal Court, to which organizations or individuals report. This might result in more companies being held publicly accountable. Even without legal sanctions due to the lack of laws on personal data, the visibility of potential mishandling by a public panel could support a change in decision-making. Social media sharing could be used by the panels, experts and organizations in a group effort to increase outreach.

So the very platforms used by companies to gather personal data will be used to inform the public using them about the malpractices.

What organizations are doing valuable work toward improving our tech future which you admire?

Center for Humane Technology, Techstars (under Maëlle Gavet), All Tech Is Human, Transformative Technologies Community.

What individuals are doing inspiring work toward improving our tech future?

Ellen Pearlman, Yasmine van Wilt, Jay Vidyarthi, Maëlle Gavet, Anne-Marie Denault, Andrew McWilliams, Nichol Bradford, Laith Ulaby.

How can we better use technology to "augment" human intelligence without jeopardizing livelihoods/employment?

I do not see the problem in augmentation, since any content and interface humans interact with arguably alters or at least affects perception and the perceiving mind. I see a great opportunity for a HX community driven by humane values to advocate for the human mind-body to be recognized with technologies. This is such a vast opportunity for job creation, employment, improving livelihoods and human lifestyles. There could be many more jobs in research, design, engineering and business, and many new exciting opportunities to develop HX for VR/AR, screens, audio, olfactory and IoT. HX demands cross-disciplinary collaboration with policymakers, media and healthcare professionals, too.

How can we design business models that profit by prioritizing humanity?

While it is possible for big tech companies to integrate features for wellbeing, their business models are still built around selling the personal data primarily. HX companies can give the ownership of the data to the humans using their products. They of course need to ensure HIPAA and GDPR compliances. But any gathering of data about humans by HX companies needs to be transparent in its process and then ask for consent. They can then offer to sell the data of the humans using the products – of course also with consent – for profit. The companies would get an agreed-upon percentage and inform the person the data are gathered and sold from all information about the process. Prior to that, the company provides multiple options to choose from. This win-win-win approach has been mostly unexplored since companies have been driven by generating the most value – profit for their shareholders.

How can we share information and best practices so that smaller platforms and startups can create ethical and human-centered systems at the design stage?

It could be helpful to develop transparency around values. How are they being integrated into the decision-making and revenue-drive of the company? How are research and development driven by values? It would be great to discuss, share and evaluate together to save each other the efforts to duplicate research. I have seen barely any overlaps but mostly many complementary approaches and technologies. I think it would be good to ensure that whoever any information will be shared with will go through an evaluation by the HX network to avoid sharing of data and insights outside of the values-driven HX community.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

The pandemic has shown great progress in aligning on humane values to reduce collective and individual suffering, and incredible progress in the development of medical treatments. I believe humans have also started to realize the impact current technologies and the profit-driven business approach had on health and wellbeing. As much as social media platforms' algorithms are, in my opinion, slowing things down by emphasizing "attention-seeking" interactions over truthful ones, the platforms have also highlighted the curiosity and care humans have for one another and for co-creating a better, fair, healthy and humane society. It is now almost common to discuss values in technology and business, and I do think this has been a novel and motivating development.

Jasmine Allegra Anouna

Founder of The Bloom

Tell us about your current role:

I'm an intersectional feminist researcher and founder of The Bloom, a global impact community to inspire joy. As an early-stage founder, I have the opportunity to experiment in many different roles, but I believe the heart of my role is a "digital landscape listener" – the most important work I do as a founder is listen to the people in my community, the plurality of voices around the world, their needs, dreams, ambitions – empathetic listening to the people in my community is what nourishes the sustainable growth of The Bloom.

In your opinion, what does a healthy relationship with technology look like?

SEPARATION. Balance is an illusion; I don't believe it's possible to live a "balanced" life necessarily, but it is possible and critical to find separation, particularly from tech. My relationship to tech has become more loving and appreciative ever since I enforced boundaries for myself at home; being more intentional about where I do or don't bring my phone, how habitually I open my laptop, or how many continuous hours pass staring at a screen. These are actions that, over time, have strengthened my awareness and intentionality of tech use.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

It's a future where the tech world never again employs the term "users"; a human and community first approach to tech design.

What has been your journey into the Responsible Tech movement and HX?

I'm particularly passionate about focusing on the potential of social media for social good. Current opinions on social media are largely dominated by its negative implications. In contrast, my research sheds an optimistic light on social media by exposing how certain projects on Instagram address and challenge gender-based violence. Two projects in particular convey the point: Il meglio delle donne and Freeda. Through a content analysis of the images and videos shared on the projects, I illustrate how they serve as unique resources for policy, and use their work as a basis for recommendations to policymakers to promote the social development necessary to counter a culture of gender-based violence. The projects disrupt traditional patterns of cultural formation and help to build a more holistic citizenship, especially for marginalized groups, in ways that merit greater attention particularly from politicians and academics.

You can find the research in the Cambridge Journal of Science and Policy.

How would you describe your own relationship with technology?

My mission, work, and company would not be possible without technology. It's the most efficient vessel through which I can carry out my mission; to build a community centered around diverse resources and job exchanges for impact. Building a community across borders would not be possible without technology.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

EDUCATION: access to education around topics that are considered too

Continued on next page

"taboo" for traditional schooling. Social media/tech makes it possible for people in conservative contexts and countries to access more progressive knowledge!

COMMUNITY: Without technology, whole movements, protests would not have been possible. Black Lives Matter, #Metoo – these live, build community, and spread information online and allow for/accelerate the gathering of communities offline.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

I find optimism in emerging communities like Crypto, Culture, & Society – they are a learning DAO [decentralized autonomous organization] exploring the impact of crypto on culture and society, with a mission to build liberal arts education for crypto.

I find optimism in emerging public figures in the space like Timnit Gebru, who was fired by Google after raising concerns about the tech giant's AI work. She launched a nonprofit organization called the Distributed Artificial Intelligence Research Institute, aware that "AI needs to be brought back down to earth."

I find optimism in emerging public figures like Diana Sinclair using an intersectional approach, bringing in other disciplines like art to shape the future of tech. NFTs are giving marginalized artists the chance for more profit, visibility, and community. With non-fungible tokens on the blockchain, creators have total control over the sale of their art and how it's distributed. In a sense they are their own agents and gallery owners.

At the core, I am optimistic because I am witness to the growing wave of restlessness that's rising; the future of leadership and progress will be one driven by empathy, and that makes me hopeful that it's possible to build a tech future aligned with our human values.

> " At the core, I am optimistic because I am witness to the growing wave of restlessness that's rising; the future of leadership and progress will be one driven by empathy, and that makes me hopeful that it's possible to build a tech future aligned with our human values."
>
> **-Jasmine Allegra Anouna, Founder of The Bloom**

Zoe Adelsheim

University Student, Co-Founder of #GoodforMEdia

Tell us about your current personal and academic interests:

I am a 3rd-year undergraduate student at the University of California San Diego majoring in Neurobiology and minoring in Health Care Social Issues. Some of my primary passions include mental health, neuroscience, and LGBTQ+ health. I co-founded the #GoodforMEdia campaign during the pandemic in hopes that we could help bring the positive aspects of social media to the forefront as well as start discussions about the negative features of social media, how to best deal with them, and what changes youth want to see made to social media. These days, youth are spending more and more time on social media, starting at increasingly younger ages, and we believe that it is crucial to open up space for peer-to-peer conversations. Through these conversations, young people can share their social media experience with each other, as well as access tips and tricks to help improve their experiences with social media.

In your opinion, what does a healthy relationship with technology look like?

A healthy relationship with technology involves being able to be authentically oneself, be intentional about how one relates to technology, and feel better after using technology. Many young people feel like we have to present ourselves a certain way in order to be accepted online. When people cannot be authentically themselves, it inhibits genuine connections. Paradoxically, connection is one of the most powerful tools that technology offers, and when we are unable to be authentically ourselves when engaging with technology, we lose access to that tool. Therefore, to have a healthy relationship with technology, digital spaces must exist in which we can comfortably be ourselves.

Another factor in our relationship with technology is being able to choose and manage how we interact with it. We are constantly inundated with advertisements and notifications, making it harder to both walk away from our phones and computers and to use them for what we intended. The way that tech companies build apps now, there is already only a certain amount of control we can have – advertisements are unavoidable and apps are constantly trying to increase our interaction with them. However, the more we can be intentional about how we relate to our technology, the healthier our relationship with it. Finally, I think a sign of a healthy relationship with technology is that we feel better after using it – for example, if I use an app and it makes me feel better (or at least neutral) as compared to how I felt before.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

In order to improve the ways we currently approach technology, we need to ensure people and their wellbeing are prioritized over corporate interests. For example, rather than the goal being to keep people engaged with apps for longer, the goal should be to design apps in ways that protect and support people by making them less addictive. Additionally, we should listen to the voices of everyday people, work to understand their experiences and struggles with technology, and integrate what we learn into the process of designing technology. This way, we can build a technological world that is built for what people need and want.

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Technology is amazing and can be designed to be incredibly beneficial for people, but as long as the focus is on money and corporate interests instead of how digital spaces can support people, people will be targeted and taken advantage of, resulting in unhealthy relationships with technology. Outside of the way technology is designed, our approach to technology could also be improved by having more open peer-to-peer discussions about the strategies people use to maintain a healthy relationship with technology. By discussing ways to use technology safely, effectively, and healthily, people of all ages can be empowered to take control of the way they interact with technology in their lives.

Social psychology tells us negative information is "stickier" than the positive kind, and many societies are experiencing a fairly dark view of tech, so help us surface some positives – what are your top 3-5 positive uses of digital tech and connected media?

My top 3 positive uses of digital tech and connected media are maintaining connection over distance, accessing new ideas, and finding community. I think it is an incredible thing that we are able to easily reach family across the country or do distance learning during pandemics (even if it is not as fun…) – all from our phones and computers. Even though I think many people (certainly myself) prefer in-person interaction, we shouldn't forget how lucky we are that we are able to stay easily digitally connected from afar. Another positive use that I highlighted was our ability to use digital tech and connected media to access new ideas; I am always finding interesting research articles, videos, or social media accounts that add new information or fresh perspectives into my life and I feel grateful to be able to easily access these new ideas at any moment. Lastly, digital tech and connected media can be extremely valuable in finding community, especially throughout the pandemic. No matter what your identity, your beliefs, or your interests, there are online spaces catering to your community. Being able to connect to people of similar backgrounds and interests can be important for so many folks, especially those who feel they are not surrounded with people like themselves in their daily lives and who need to hear from others who relate to them.

If what many people believe is true and social media needs to be better for young people, how would you advise tech companies to make it better for you and other people around your age?

Tech companies could make social media better for young people by ensuring that the technology they are developing that is geared toward them falls in line with young people's values and long-term goals. Tech companies should listen to young people's experiences with social media, what they want from their social media, and what issues they tend to have with it. By integrating youth voice into the way that tech companies develop social media, they are more likely to be able to create platforms that young people can have positive relationships with. Tech companies could have youth advisors that are with them through each step of the tech development process. I think that it would also be helpful if tech companies themselves helped spread tips on how young people can manage their social media in ways that might feel more helpful for them. For example, amplifying other youths' strategies or making sure that people know about the tools that they have integrated into apps that folks may find helpful (such as how to turn off likes). Lastly, tech companies should be transparent and clear with youth about how their platforms work and the way that data is collected and used. That way, youth can make more informed choices in digital spaces.

Do the parents and teachers in your life generally understand how you use tech and, if not, what would you tell them they need to know about it?

I think that parents and teachers tend to understand a lot about technology, but the biggest area where youth and parents/teachers are misaligned is in social media. As social media is primarily used by younger generations, parents generally do not have a great handle on it. I would tell them that they need to know that social media does not have to be entirely negative and that it can have real benefits for young people, especially in the socially-distanced world we are living in right now. Still, however, there are obviously aspects of social media that can be problematic and that youth certainly need to be aware of. Parents and teachers should try to engage in conversations with their young people to learn more about why they like social media as well as what their struggles are with it and how they stay safe online.

What makes you optimistic that we, as a society, can build a tech future aligned with our human values?

While it can be hard to feel optimistic, seeing organizations and young people start to talk about the problems that exist with how technology works now and begin to push for change makes me feel optimistic. The more people who are willing to name and discuss the issues that we are seeing with the way technology currently works, the closer we get to coming up with and pushing for solutions. I have seen so many organizations that are already working to make changes in the tech industry for the better, and I am hopeful that little changes will start to add up and move us toward a tech future better aligned with our human values.

Patrick K. Lin

Author of Machine See, Machine Do: How Technology Mirrors Bias in Our Criminal Justice System

What is your vision for a tech future aligned with the human experience?

The human experience cannot be divorced from human history. To make our technology better for the future, we need to ensure that it does not repeat mistakes from our past. AI and other automated tools encode policy decisions, so we must scrutinize not just the design and deployment of technology, but also the purpose and intent of that technology.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

HX is about improving individuals' interactions with technology, including interactions that are deliberate, acquiesced, or forced. HX should also account for factors beyond the immediate technology. More specifically, history and even politics should be considered when evaluating the impact of technology on communities.

A major goal for HX (Human Experience) is to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

As technology continues to rely more and more on data, particularly human data, the way we talk about data must also change. Data is not some passive resource or asset that should be exploited or extracted. Instead, data must be viewed as an ever-changing and dynamic record. In fact, today's data is perhaps the largest and most complete collection of human history and experiences. If discussions around data can move in this direction, industry may be more cautious and thoughtful in the way it develops and deploys technology. More importantly, consumers, users, and humans will be better equipped to scrutinize businesses that do not fully appreciate the human experience.

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

We must keep the allure of tech solutionism at bay. Technology can perform some really incredible feats; however, blind tech solutionism prevents us from authentically evaluating the downsides of technology. Just as seemingly innocuous structures and institutions can and have been designed to oppress and marginalize, technology can and has done the same. In order to achieve a more holistic, collective approach, technologists and activists must have an appreciation for history and policy. The norms, biases, and institutions of the past still impact the people and communities of today. As a result, technology also impacts people and communities in different ways, benefiting each group -- and harming each group -- in unique and often curated ways. Studying and understanding lessons learned from history will enable us to reduce the likelihood of harm caused by technology.

What organizations are doing valuable work toward improving our tech future which you admire?

ACLU's Speech, Privacy & Technology Project, Electronic Frontier Foundation (EFF), Surveillance Technology Oversight Project (STOP), Distributed Artificial Intelligence Research Institute (DAIR).

Continued on next page

What individuals are doing inspiring work toward improving our tech future?

Timnit Gebru, Joy Buolamwini, Juyoun Han.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

Although the current state of technology may appear bleak, I believe the widespread biases and issues we have already been able to identify means that we have an opportunity to address bias on an unprecedented scale. Building a better tech future, one that prioritizes the human experience, starts with the identification of these problems -- unethical, unaccountable, irresponsible, and biased technology.

> " In order to achieve a more holistic, collective approach, technologists and activists must have an appreciation for history and policy. The norms, biases, and institutions of the past still impact the people and communities of today. As a result, technology also impacts people and communities in different ways, benefiting each group -- and harming each group -- in unique and often curated ways."
>
> **-Patrick K. Lin, Author of Machine See, Machine Do: How Technology Mirrors Bias in Our Criminal Justice System**

Danica Radovanović

Research Director, DQ Institute

In your opinion, what does a healthy relationship with technology look like?

In order to have a healthy relationship with technology, as individuals and societies, it is necessary to possess more than basic digital skills. Digital intelligence (DQ) is required for the next level of participation in the digital technology highway. DQ is defined as the sum of technical, mental, and social competencies essential for digital life. It encompasses skill pointers within eight areas – digital identity, digital use, digital safety, digital security, digital emotional intelligence, digital communication, digital literacy and digital rights.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

HX concept is very similar to DQ as it intersects many existing fields, making our lives healthier, more equitable, more human, and more digitally intelligent. I would define it as an interdisciplinary area where digital citizenship, digital wellbeing, humane technology, and digital intelligence meet.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

Technology needs to help us better understand our relationship with it, make better decisions and improve our livelihoods, especially to the other half of the world that is not connected to the internet. Children and young people who grew up with smartphones and social media are also eager to improve their relationships with tech – and are uniquely positioned to help guide us toward a better, more inclusive future.

What has been your journey into the Responsible Tech movement and HX?

Working on international projects related to internet connectivity in the Global South have given me insights into the digital inclusion of the other half disconnected population, especially vulnerable groups, children, and women.

Equally important, working on the projects in the Global North and how young people use the internet and social media was valuable. It provided insights into how tech tools shape us and where we go in the future. Together with my colleagues at the DQI, we created the DQ framework and DQ index, which has been recognized as the world's first global standard on digital literacy, skills, and readiness. It acts as a guide on how we can start preparing and equipping citizens and children with digital competencies that will help them better navigate today's digital world and be good and responsible digital citizens. All these activities contribute to HX and Responsible technology.

What does your ideal tech future look like and what needs to happen in order to make that future a reality?

We could see how we all were spending more time on our devices due to the pandemic, especially children who started to learn online from home instead of in the classroom. This also increased their exposure to cyber threats such as cyberbullying, gaming disorders, and social media addictions. Having said that, equipping ourselves and our children with digital competencies such as using technology safely, responsibly and ethically, is no longer optional, as these skills will help our children navigate the digital world and be good digital citizens. The future belongs to our children.

In order to accomplish this ideal scenario, policymakers, governments, and industry stakeholders should collaborate and work together on building such safe and creative digital environments.

How do we empower and uphold the rights of people using or affected by technology? Are there both individual and collective inputs and, if so, what are they?

Several years ago, the United Nations recognized internet technology as a basic human right. On the other side, we have the emerging technologies such as artificial intelligence, IoT, automation, and blockchain, which have the potential to make significant positive contributions to the promotion and protection of human rights. The growth of these technologies raises important questions about our current legal systems, policies, and advocacy strategies and how they can mitigate the human rights risks that may be affected by these technologies.

Human Rights by Design, fair access to products and services, and privacy solutions are areas we as a society have to work on.

What organizations are doing valuable work toward improving our tech future which you admire?

Some of the organizations that work for the benefit of the technology future and are worth mentioning are the ITU, Web Foundation, the Coalition for Digital Intelligence (CDI), the IEEE Standards Association, the EIU index, and universities worldwide, etc.

What individuals are doing inspiring work toward improving our tech future?

Vint Cerf, one of "the fathers of the Internet," and Sir Tim Berners Lee, the inventor of the World Wide Web.

What needs to be done, added and/or eliminated to foster cultures that value human capital amid the growing use and impact of technology innovation in responsible tech to shape a better, more equitable HX for all? How do we (all of us, across all sectors) make it so that technology serves people and humanity?

We need to address and bridge the present digital divides in our society, globally. First, we need to connect the unconnected, which is half of the world population. And second, we need to implement digital skills programs, DQ from early childhood education, in schools and workplaces.

"Digital citizenship" means different things in different communities and countries, from civic engagement to netiquette to equitable business practices to DEI. What does it mean to you?

DQ's framework defines digital citizenship as the ability to use digital technology and media in safe, responsible, and ethical ways. In the Council of Europe's framework, digital citizenship is a set of competencies that contribute to the wellbeing of young people growing up in our digitized world.

As the backbone, digital citizenship is placed alongside indicators such as digital skills, digital identity, and digital empowerment and agency. It is positioned laterally since most discussions on digital wellbeing still anchor much of its premise on participation and empowerment. This means that one's wellbeing can be guaranteed once the basics (i.e., skills, literacy) are fulfilled while ensuring a person's self-determination and empowerment. Thus, digital citizenship still plays an important aspect in digital wellbeing.

> "Technology needs to help us better understand our relationship with it, make better decisions and improve our livelihoods, especially to the other half of the world that is not connected to the internet. Children and young people who grew up with smartphones and social media are also eager to improve their relationships with tech — and are uniquely positioned to help guide us toward a better, more inclusive future."
>
> **-Danica Radovanović, Research Director, DQ Institute**

Faye Sahai

Managing Director, Vinaj Ventures and Telosity.co

Tell us about your current role:

I am the Managing Director of Vinaj Ventures and www.Telosity.co fund and focused on investing in digital wellness and mental health startups. We have looked at thousands of companies. We want to ensure the companies are leveraging technology for the wellness of the individual and the good of society and considering the health, community wellbeing and human experience.

What organizations are doing valuable work toward improving our tech future which you admire?

There are several organizations doing valuable work towards improving our tech future with human experience in mind that I admire. Here are a couple of them and many more included in this report:

Algorithmic Justice League – movement toward equitable and accountable AI. We now live in a world where AI governs access to information, opportunity and freedom. The Algorithmic Justice League is an organization that combines art and research to illuminate the social implications and harms of artificial intelligence. AJL's mission is to raise public awareness about the impacts of AI, equip advocates with empirical research to bolster campaigns, build the voice and choice of the most impacted communities, and galvanize researchers, policymakers, and industry practitioners to mitigate AI bias and harms.

Women in AI Ethics – Given the pervasiveness of biased Artificial Intelligence (AI) algorithms and risk to human lives from flawed AI systems, there is an urgent need for open discussion and concrete action to address the perils of unchecked AI. We can't talk about ethics in AI without inclusion of women and other marginalized groups that are traditionally underrepresented in AI/tech. The Women in AI Ethics™ (WAIE) is a global initiative with a mission to increase recognition, representation and empowerment of women in AI Ethics.

What individuals are doing inspiring work toward improving our tech future?

I admire Anne Collier for her work, research, and thought leadership focused on kids and tech. I first met Anne when she was speaking at an All Tech Is Human event several years ago and appreciated her thoughtful discussion. We are honored to have her as a Telosity advisor for our fund and appreciate her insight and advice on technology and young people. She is the ultimate connector, collaborator and information clearinghouse for the international youth Internet safety and digital rights community. She brings multiple perspectives and advice from her experience as a non-profit executive, youth advocate, writer, safety adviser and consultant to social media platforms; piloted the first US social media helpline for schools. Anne serves on the trust & safety boards of Facebook, Snapchat, Twitter, Yubo and YouTube. She blogs at NetFamilyNews.org. Her TEDxGeneva talk was about "The Heart of Digital Citizenship." She also writes at annecollier.Medium.com.

I am inspired by Mia Dand for her work in raising awareness on AI and ethics as well as diversity in AI. I first met Mia Shah-Dand when she was founding Women in AI Ethics™, a global community dedicated to increasing recognition, representation, and empowerment of talented women in this space. I have had the honor of attending a few of her 100+ virtual and in-person tech events to democratize and expand access to new technologies for folks

Continued on next page

outside of the big tech-academia bubble. She also hosts educational events and informative Twitter chats (@MiaD) to raise awareness about ethical issues in AI and highlight the work of BIPOC experts in this space. She created the first "100 Brilliant Women in AI Ethics" list in 2018, which is now published annually, and built an online directory as a helpful resource for hiring managers and AI conference organizers to recruit more diverse talent. Mia is on the Selection Committee for Anita Borg ABIE Social Impact award committee and on the Advisory Board for Carnegie Council's Artificial Intelligence & Equality Initiative. Her work has been featured in Forbes, Fast Company, and VentureBeat.

What needs to be done, added and/or eliminated to foster cultures that value human capital amid the growing use and impact of technology?innovation in responsible tech to shape a better, more equitable HX for all? How do we (all of us, across all sectors) make it so that technology serves people and humanity?

A lot needs to be done to foster cultures and economies that are responsible, equitable and respectful to value human capital amid the growing use of technology. There is no silver bullet and it will take multiple stakeholders and initiatives including: guidelines, governance, and policy; awareness, education, and training; resources and best practices; and aligned incentives and business models and investments.

What can we do to incentivize businesses to bake HX (safety, privacy, data security, equity, user care, etc.) into product design?

I believe we need to be proactive to bake human experience into product design by both stick and carrot methods to incentivize and align businesses:

- **Stick**:
  - Policy/laws/mandates/regulations/guidelines that outline what is required from safety, privacy, data security, equity, data usage, etc
  - Fines/penalties – process of recourse and consequences when you do follow the mandates
  - Reporting/transparency – requiring reporting and transparency for people to know who are being proactive
  - Lawsuits/bad publicity – accountabilities and communication when people do not follow mandates
- **Carrot**:
  - Training/education that increases awareness and skills for businesses to proactively include in product design
  - Funding models that incent and resource the human experience considerations like tax incentives and grants and investor considerations
  - Resources – access to best practices and experts that business can turn to for HX expertise.
  - Certification – third-party and process to ensure and review that you did follow guidelines and communicated externally.
  - Recognition/awards – to recognize the leaders and role models demonstrating the way, sharing best practices, etc.

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

I am optimistic and have hope for the future – as our younger generations are digital natives, they will be demanding action, and technology will be more values-driven. They will continue to grow and build in numbers and influence to change our society and technologies. We have been learning the hard way – through trial and error with consequences and focused more on shareholder capitalism instead of stakeholder capitalism that considers *multiple* bottom lines. With the likes of the HX report, All Tech Is Human, Davos, young people and many other organizations and individuals raising the call to action, I am optimistic we will get there. My hope is that it is sooner than later.

> "I believe we need to be proactive to bake human experience into product design by both stick and carrot methods to incentivize and align businesses."
>
> **-Faye Sahai, Managing Director, Vinaj Ventures and Telosity.co**

Anna Slavina

PhD in Human Computer Interaction

Tell us about your current role:

I am assisting with research for a book that lies at the intersection of moral psychology and technology.

In your opinion, what does a healthy relationship with technology look like?

A person deciding to use technology to augment their own abilities and accomplish their goals rather than a technology imposing itself within a person's life and creating a co-dependency. A symbiotic relationship would be interesting in which a person improves upon a technology by using it in a way that the creator of the technology might not have

considered, while also growing themselves and developing a deeper understanding of themselves, the technology, and the world around them.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

A symbiosis between human and artifact that benefits both parties by making better technologies as well as better humans.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

We've been moving too fast (relying very much on intuitions and instincts and then making after-the-fact rationalizations for our behaviors) and now it might be time to slow down a bit and be more deliberate and intentional about how we engage with our technologies and with each other through our technologies.

How would you describe your own relationship with technology?

I'm not the sort of person who de-individuates and becomes part of a collective when I engage on the internet – I try to retain a sense of self and how I want to be in the world that's not tied to my technology usage. I employ technology when I'm trying to extend my sphere of understanding to incorporate different perspectives I have not personally lived. It also helps me navigate new spaces (in the tangible world as well as the digital) and explore different possibilities. I mostly treat technology as an access point for me to connect with other minds, but I am prone to the sort of attention-grabbing habit formations around technology and sometimes forget that I'm looking at my phone while people around me are looking for my attention.

Social psychology tells us negative information is "stickier" than the positive kind and many societies are experiencing a fairly dark view of tech, so can you help surface some positives? What would you cite as your top 3-5 positive uses of digital tech and connected media?

1. Connecting people to ideas that they would not otherwise have encountered

2. Giving people different worlds to explore in their search for purpose

3. Allowing more people to express themselves in ways that might be prohibitively resource-intensive in the outside world (digital art and other forms of digital creative expression)

4. Decentralizing information such that there isn't one entity that controls Truth

5. Forming and maintaining kind and loving connections between people who might not otherwise have a chance to meet

Kristine Gloria

Co-Founder, COO of Slow Talk, PBC / former Director of Artificial Intelligence, Aspen Institute

Tell us about your current role:

I am the Co-Founder, COO, and Technology lead for Slow Talk, PBC.

In your opinion, what does a healthy relationship with technology look like?

In my opinion, a healthy relationship with technology empowers the end user to thrive and seamlessly fits with their day-to-day.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

HX is a concept that permits us to identify and understand the human-tech relation as symbiotic and interwoven.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

One of the main needs in improving how we currently approach technology is to rebalance power dynamics between the user and the technology creator and/or business. To do this requires both increased digital and technical literacy by the end user and a reimagining of how

business can be successful.

What has been your journey into the Responsible Tech movement and HX?

I've had the pleasure of working with the Responsible Tech movement and HX from very early on in both of their inceptions. I'm delighted to see the progress that each has made in just a short period of time.

How would you describe your own relationship with technology?

My own relationship with technology is best described as "optional." In many ways, I feel empowered to operate with it, if necessary. But I also very much recognize and understand how to thrive without it.

Jane Vita

Design Lead at VTT, Technical Research Center of Finland

What is your vision for a tech future aligned with the human experience?

To better understand how technology fits into different physical environments and enable pleasant and healthy experiences, it is necessary to discover the right moment to bring digital to space. Is everything digital, or can tech be more invisible and less interactive? I believe that we will think of technology as an integral part of life in the future. We will certainly better understand the implications of cognitive load and technological exposure.

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

I like the idea of a life-centered experience. We go post-human era, nothing centralized in humans but the ecosystem around us. A systemic approach to design, where humans are essential, but one of the many actors; we give a voice for people and the planet so far left out of the conversation.

A major goal for HX (Human Experience) is to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

A systemic approach to design, where humans are essential…. There is also the idea of what we know. We live in structured societies; we don't know what we don't know – or are not exposed to the same challenges as others – we live in bubbles. We need better tools, regulations, legislation, standards that force and make us reflect on value-sensitive topics with ethical and ecological implications. We need relevant business metrics that go beyond profit and customer satisfaction.

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

A practical idea that, at VTT, we call "innovation," instead of calling it "design" or "tech process," etc. Integration comes with giving it a more general name that can encompass more disciplines. I'm used to hearing, "This is a Designer thingy" or "Design Thinking": not so inclusive of others.

What individuals are doing inspiring work toward improving our tech future?

In Nordic countries, there is an excellent understanding of the potential of using technology to enable a more sustainable and fair future. I'm seeing evidence of collective intelligence, starting with education, i.e. "*I believe that society will overcome its challenges*").

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

As technology gets more democratized, as more people are familiar with its implications, involvement from non-"tech creators" will increase, creating more demand for sustainable and fair solutions. Social justice and green deals will pop up and be integrated around the world.

Maryam Lee

Strategic Program Manager at The IO Foundation

In your opinion, what does a healthy relationship with technology look like?

What a lovely question! In my opinion, a healthy relationship with technology looks like any other healthy relationships: respect for one another (in the network), agency, and liberty to be fully present as who we are, and the infrastructures support every participant to be a force for positive transformation in the world. A conscious technologist is like a healer or a doctor. The digital world, just like the physical world, is currently ill and needs treatment. We sure could use a movement to help bring as much healing as possible to the collective.

would *you* define it?
HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

I can only speak from the experience of a technology user, which I don't mind being as long as my rights are protected in the digital space (as they are in the analog one). I think the main target for creating more human(e) technological structures are the technologists. Right now, I'm not so sure if they realize to the full extent the responsibility they have in ensuring rights are protected in the technologies that they build. They probably know they have some form of responsibility to manufacture great products, but

mostly purely out of commercial interests. In essence, perhaps a human experience of technology should emphasize the fact that our humanity is not up for sale even in the digital world.

A major goal for HX might be to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

Well, as I've said in the previous answer, being users is not a problem. It only becomes a problem when we are not considered part of the production process of technologies. We now see "users" from an outsider's perspective, as if technology happens to us and not with us or for us. Being a technology user is part of being human, as we have always been since we invented tools to make our lives easier. We just happen to be living in the era of digital technologies. Our tools may be different now but we still operate under the same technology-user paradigm.

A frequent criticism of social media platforms is that they prioritize profit over people. Do you agree with that statement? And, if so, what needs to change in order for platforms to have people at the center of their decision-making?

I would agree with that statement. The technologies we use today are still being consumed under the same economic system as the analog one: capitalism. Therefore, they follow the logic of capital accumulation and profit maximization of that same economic system. There have been some experiments with building technologies that are more comparable to alternative economic systems, such as social democracy or decentralized systems, however those instances are far from many.

As the great Francesca Bria, former chief technology officer of Barcelona Digital City, always taught us to do, we must decide the political philosophy for the technology first, and then figure out which technology to use. Only from there can we imagine technologies built for human-centric purposes rather than always being profit-oriented.

What is your vision for a tech future aligned with the human experience?

"The human experience cannot be divorced from human history. To make our technology better for the future, we need to ensure that it does not repeat mistakes from our past. AI and other automated tools encode policy decisions, so we must scrutinize not just the design and deployment of technology, but also the purpose and intent of that technology."–**Patrick Lin, author of *Machine See, Machine Do: How Technology Mirrors Bias in Our Criminal Justice System***

"My vision for a tech future aligned with the human experience involves a complete reset of how Western social media corporations think and behave globally. There is an urgent need to make such corporations, especially social media companies, more responsible and aware of their non-Western markets and governments."**–Akriti Gauer, Resident Fellow, Yale Information Society Project**

"The new business model requires a corporate transformation to a new mindset where human capital is not viewed as a cost, but as a corporate asset. In order to develop the human capital, we need transparency and accountability that changes the decision making from top-down, with organizational controls on use of corporate assets, to a decentralized focus on individual and group design thinking, creativity, and adaptability to add value to the production and delivery of goods and services that grow new prosperity." -**Deborah Hagar, President of The Foundation for Sustainable Communities**

"My vision for a tech future aligned with the human experience involves people getting adequately compensated for the data, attention, social/ethical labor they are providing to social media platforms. These platforms would need to be pluralistic and community-run, have transparent governance, and have a central source of truths, guidelines, and history secured via the blockchain."**–Jaxon Price, Student, University of Arkansas**

"I envision a tech future where technology works for us, instead of against us – where technology helps us build bridges with one another, recognize our shared humanity and engage in critical thinking, where our platforms help us to be more empathetic, more imaginative. A tech future where trustworthiness, privacy, equity, and inclusion, are taken as core values." -**Emma Leiken, Chief of Staff, Programs, and Responsible Tech team member @ Omidyar Network**

"Developing sustainable solutions that don't replicate the problems that we are actively trying to leave behind." -**Jessica Outlaw, Research Director at The Extended Mind**

HX is a fairly new concept, so we're gathering perspectives on it: How would *you* define it?

"HX is a way that people can be connected to technology and HX is much more fundamental because it's not just connected at the surface-level user interface, but deeper because everyone is human." –**Tanush Kaushik, Youth Ambassador, Telosity**

"I see HX as the state in which people understand their own wellbeing and are empowered by technology to attain it."–**Michael Preston, executive director, Joan Ganz Cooney Center at Sesame Workshop**

"HX is built on a foundation of valuing, understanding, and celebrating people first, rather than being distracted by tech solutionism."–**Nneka Sobers, research + program manager at Cornell Tech's Urban Tech Hub**

"While UX is a growing area within technology, there are many companies who aren't even user-first, let alone human-first. HX seeks to bring attention to this fact and that technology created to interact with humans should take their experience into account."-**Nicole Wheeler, Director of Memberships at AIM Institute**

"The term HX may be fairly new, but the concept of understanding the relationship between humans and technology on an individual or societal level is age-old…. For me, HX isn't about the medium or outcome of the technology – we have had a variety of technologies in entertainment, medicine, transportation, industrial manufacturing, etc. – it is about understanding what purpose these interactions have and who they are serving."–**Atulya Chaganty, multidisciplinary designer**

"HX centers on human values rather than consumer values."–**Katrina Ingram, CEO, Ethically Aligned AI**

"A shared collective experience that applies the best of humanity (our empathy, creativity, and uniqueness) beyond the benefits of humans. It does not serve only us but also other living beings and our planet. It answers the questions, "What does it mean to be human?" and "What can we do for others?"–**Thu Do, design collective builder**

"HX is an interdisciplinary approach…rooted in lived experiences and narrative-sharing to discuss how humans interact and identify with their relationship with technology."–**Tazin Khan, founder, Cyber Collective**

"Tech that amplifies our best tendencies."–**Attila Schillinger, founder, ESG Core**

The concept of HX (Human Experience) sits at the intersection of many existing fields all working on ways to make our lives healthier, more equitable and more human. In your opinion, how can we better unite these various groups to have a more holistic, collective approach?

"I'd love to see ways to make industry folks feel more free and empowered to have the conversation outside of their teams and companies without fear of revealing proprietary information or of reprisal from employers. I'd also love to see academics, journalists, and others outside of industry better understand and account for the business needs and drivers within industry – particularly how social products scale and how difficult it is to maintain or support social products that don't scale."–**Laure X Cast, founder, GetWith**

"Folks who are impacted by technology, but who often don't get a seat at the table at any stage of the tech creation process, need to be brought in early and often. Solutions need to come from listening directly to the folks affected by the problems that tech claims to solve."–**Joi Rae, head of Operations and Partnerships, New_ Public**

"We need to identify the shared values that cut across these fields. Even if our approaches and focus areas are different, we can get farther together if we align around areas of shared values and purpose."–**Cindy Cooper, Program Officer, Lemelson Foundation**

"I think the best way to develop a collective approach would be to create channels of collaboration across similar fields of work while also leaving room for input from other industries."–**Ananita Maitra, Outreach and Partnerships Manager, TikTok**

"Right now, much of the AI ethics/tech ethics community is a self-selected opt-in. That is a good start, but it attracts a certain type of person who usually has some level of privilege (professional education, works in the tech sector already, has time to volunteer, etc.). I wonder about purposefully reaching out to groups that already serve particular communities and inviting those groups to be part of the conversation." -**Katrina Ingram, CEO, Ethically Aligned AI**

"I believe [Lion King character] Mufasa put it far more eloquently when he said, 'Everything you see' [and don't] 'exists together in a delicate balance…you need to understand that balance and respect all….we are all connected in the great Circle of Life'…. Everything exists in a context, and it is critical to incorporate those contexts into the process."–**Atulya Chaganty, multidisciplinary designer**

"I'm a big fan of participatory action research and the combined idea of multi-stakeholder platforms. I think systems that allow us to bring diverse stakeholders together to negotiate is key." -**Marnie Webb, Chief Community Impact Officer, TechSoup and CEO, Caravan Studios, a division of TechSoup**

A major goal for HX (Human Experience) is to change our approach to talking about, engaging with and designing technology in a way that's aligned with our needs as humans — not users. In your opinion, what needs to happen in order to improve the ways we currently approach technology?

"Designing solutions and new approaches for youth [wellbeing] needs to include youth…. We as experts in the field need to recognize the limits of our own expertise. Regardless of whether one is a policy expert, a communicator or a researcher, we are still all adults and lack the lived experience that adolescents and young adults are having right now. We've never been 16 and quarantined and using TikTok for distraction from our anxiety about a global pandemic. It is critical to include the voices of that population in our hopes, plans and assessments." –**Megan Moreno, MD, professor of pediatrics, principal investigator, Social Media and Adolescent Health Research Team, director of Technology and Adolescent Mental Wellbeing program**

"Spaces need to be designed with inclusivity and equity in mind, which doesn't always mean the same thing for everyone….For example, on many platforms, trans and nonbinary people are reported much more frequently by other users for terms-of-service violations, due to bias on the reporter's end. Someone may say that a trans woman is "fake" or "impersonating" just for being herself. This means platforms would need to create checks and balances for these reports to make sure they're not amplifying the bias….Platforms are learning that "being neutral" is in itself not neutral. Harms can happen if a platform stands back and treats everyone equally. Equality does not mean equity, and keeping moderation policy and enforcement out of "identity politics" will hurt marginalized groups." **–Alice Hunsberger, senior director of Customer Experience, Grindr**

"Children and young people who grew up with smartphones and social media are also eager to improve their relationships with tech – and are uniquely positioned to help guide us toward a better, more inclusive future."**–Danica Radovanovic, research director, DQ Institute**

"We need to recognize technology is an extension of our physical spaces and thus we need to extend the same degree of civilization, norms, and rules we have governing us in settings like a public plaza, a library, an art museum, a highway, or a school. We need structures, accountability and oversight, with an overriding principle that is centered around the greater good – supporting and benefiting society."**–Vicki Harrison, MSW, program director, Stanford Psychiatry Center for Youth Mental Health & Wellbeing**

"Academic institutes need to start instilling HX in the core curriculum. In collaboration with standards bodies and industry, there needs to be a concerted effort to create a movement to make this fundamental shift in how we start designing technology for needs. A strong need for regulation is also required to oversee this." -**Kiran Kadekoppa, CTO/Co-Founder, HUEX Labs**

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

"I think the future of tech is the future of the world, and that future will make huge moves in the right direction when the industry realizes how much digital spaces impact youth. We are growing up on these platforms. It isn't just about a profit anymore, it is about empowering the next generation to make the world a better place. Small safety issues in digital platforms can not be overlooked because these platforms are raising young people. Allowing a technological future that is known for housing hate and negativity will manifest that same hate and negativity within youth and will persist until adulthood. It isn't about "users" but children, people and real lives." **-Harini Sridar, university student, adviser to Headstream's Youth 2 Innovator Program**

"At the core, I am optimistic because I am witness to the growing wave of restlessness that's rising; the future of leadership and progress will be one driven by empathy, and that makes me hopeful that it's possible to build a tech future aligned with our human values."**–Jasmine Allegra Anouna, founder, The Bloom**

"More and more folks, millennial and younger, with critical and optimistic perspectives on technology are entering decision-making phases of their careers....Youth already have the necessary predilections to use technology in non-approved ways; I'm optimistic that, with a little digital media literacy and technology tools training, these youth will disrupt the profit motive and create new and *real* worlds of possibility."**–Parker Miles, PhD candidate, University of Michigan**

"As our younger generations are digital natives, they will be demanding action, and technology will be more values-driven. They will continue to grow and build in numbers and influence to change our society and technologies. We have been learning the hard way – through trial and error with consequences and focused more on shareholder capitalism instead of stakeholder capitalism that considers *multiple* bottom lines. With the likes of the HX report, All Tech is Human, Davos, young people and many other organizations and individuals raising the call to action, I am optimistic we will get there. My hope is that it is sooner than later."**–Faye Sahai, managing director, Vinaj Ventures and Telosity.co**

"More and more, younger generations who are growing up in a digital age are advocating for healthier social media practices....When I see more and more accounts promoting positive body image, celebrating connection, or combating misinformation, on my social media, I am reassured that this movement is only just beginning. I truly believe that this younger generation has the position, power, and desire to shape a future that works for us."**–Emily Chan, high school student and #GoodforMEdia co-founder**

"I look around and I see immense possibilities all around me. It could go very badly. We could absolutely come out of this worse than we came in. Anyone -- any future -- can come out on top. So, why not us? Why not team human?"**–Sahar Massachi, co-founder, the Integrity Institute**

What makes YOU optimistic that we, as a society, can build a tech future aligned with our human values?

"I am optimistic that as a society we can build a tech future aligned with our human values.... Some initial questions to consider in defining them: Do we believe that we are all equal? Do we believe that we are all interconnected? Do we believe we can make the world a better place? Do we believe that we all deserve opportunity? Do we believe that we can consider our human needs and profits together? Answering these essential questions can define the future of tech."**–Ameen Berjis, high school student, adviser to Headstream's Youth 2 Innovator Program**

"Oddly enough, COVID gives me hope. While we can focus on the many things we could or should have done better to address the global pandemic, it's also made us realize how interconnected we are and how problems do not stop at borders. Going through a global pandemic has made many people stop and think deeply about what they truly value. I think building a human centric tech future requires us to be able to address these types of massive global issues and collective action problems."**–Katrina Ingram, CEO, Ethically Aligned AI**

"Today's generation of adolescents are thoughtful about their technology use and prioritize relationships and experiences. They have navigated a pandemic, political instability and critical social justice movements. They are the most diverse generation of youth we've had in the US. I'm very optimistic that by leveraging their unique perspectives and experiences, we can create a new technology future focused on the human experience."**–Megan Moreno, MD, professor of pediatrics, principal investigator, Social Media and Adolescent Health Research Team, director of Technology and Adolescent Mental Wellbeing program**

"As much as social media platforms' algorithms are, in my opinion, slowing things down by emphasizing 'attention-seeking' interactions over truthful ones, the platforms have also highlighted the curiosity and care humans have for one another and for co-creating a better, fair, healthy, and humane society. It is now almost common to discuss values in technology and business, and I do think this has been a novel and motivating development."**–Hannes Bend, CEO and founder, breathing AI**

"I remain optimistic that we can build a tech future aligned with human values because I have seen firsthand how technology can make a difference in the lives of young people. Through providing volunteer emotional support to teenagers over the past year, I have seen how technology's ability to connect us all can change perspectives, and ultimately lives. Communities built on empathy and knowledge make for a promising technological future."**–Maya Nittoor, high school student and Youth Ambassador, Telosity**

Organizations and Resources for HX

Read about and connect with the many organizations that are involved in improving our tech future and that our working groups has identified as being related to HX.

AllTechIsHuman.org | HXreport.org

Find more at HXproject.org

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5Rights Foundation (@5RightsFound) *"5Rights Foundation exists to make systemic changes to the digital world that will ensure it caters for children and young people, by design and default. We advocate for enforceable regulation and international agreements that allow children and young people to thrive online. We develop technical standards and protocols with engineers and colleagues around the world to help businesses reshape and redesign their digital services with children and young people in mind. We publish and lead across our four priority areas: Design of Service, Child Online Protection, Children and Young People's Rights, and Data Literacy."* 5rightsfoundation.com

RESOURCES: Key findings and recommendations from Pathways: How digital design puts children at risk
TAG: Product Design, Tech Augmentation, Digital Citizenship

Access Now (@accessnow) *"Access Now defends and extends the digital rights of users at risk around the world. Organizer of @RightsCon, the annual human rights and technology conference."* Accessnow.org

RESOURCE: *"Access Now's Digital Security Helpline works with individuals and organizations around the world to keep them safe online. If you're at risk, we can help you improve your digital security practices to keep out of harm's way. If you're already under attack, we provide rapid-response emergency assistance."*
TAG: Digital Citizenship

Accountable Tech (@accountabletech) *"Accountable Tech is working to bring about long-term structural reform to tackle the existential threat social media companies pose to our information ecosystem and democracy."* Accountabletech.org

RESOURCE: Main Street Against Big Tech is a project of Accountable Tech *"empowering small business owners themselves to share their lived experiences to tell the truth about Big Tech's relationship with small businesses."*
TAG: Broken Business Model, Digital Citizenship

Ada Lovelace Institute (@AdaLovelaceInst) *"Through research, policy and practice, we aim to ensure that the transformative power of data and AI is used and harnessed in ways that maximise social wellbeing and put technology at the service of humanity."* Adalovelaceinstitute.org

RESOURCE: Algorithms in social media: realistic routes to regulatory inspection
TAG:Tech & Wellbeing, Product Design, Tech Augmentation

AI4People (@Ai4People) *"AI4People is a multi-stakeholder forum, bringing together all actors interested in shaping the social impact of new applications of AI.* eismd.eu/ai4people/

RESOURCES: AI4People's Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations; Report on Good AI Governance: 14 Priority Actions, a S.M.A.R.T. Model of Governance, and a Regulatory Toolbox
TAG: Product Design, Tech Augmentation

AI for Peace (@AI4Peace) *"The AI for Peace is a San Francisco based nonprofit organization focused on studying and understanding the impacts of artificial intelligence (AI) and related exponential technologies on society."* AIforpeace.org

RESOURCE: AI Explained: Non-technical guide for policymakers
TAG: Content Moderation, Tech Augmentation

AI Future Lab (@AIFutureLab) *"The AI Future Lab is a research lab for youth in AI by youth in AI. The AI Future Lab is an initiative incubated from the World Economic Forum's Global Shapers community. We are the go to place for youth to learn and get involved in all aspects of artificial intelligence from technology development to design to policy and ethics. The AI Future Lab creates a unified space for leadership, research, data-driven projects, networking, and community building around artificial intelligence for young people around the globe."* https://www.aifuturelab.ai/

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AI Now Institute (@AINowInstitute) *"The AI Now Institute at New York University is an interdisciplinary research center dedicated to understanding the social implications of artificial intelligence."* Their work focuses on four core domains: Rights & Liberties; Labor & Automation; Bias & Inclusion; Safety & Critical Infrastructure. AInowinstitute.org

RESOURCE: How to Interview a Tech Company: A Guide for Students
TAG: Digital Citizenship

Algora Lab (@AlgoraLab) *"Algora Lab is an interdisciplinary academic laboratory that develops a deliberative ethics of AI and digital innovation and analyzes the societal and political aspects of the emerging algorithmic society."* Algoralab.ca

RESOURCES: The Open Dialogue On AI Ethics, Training "Ethics of Digital, Data Science and AI" in collaboration with IVADO (Institut de valorisation des données)
TAG: Digital Citizenship

Algorithmic Justice League (@AJLUnited) *"The Algorithmic Justice League's mission is to raise awareness about the impacts of AI, equip advocates with empirical research, build the voice and choice of the most impacted communities, and galvanize researchers, policy makers, and industry practitioners to mitigate AI harms and biases. We're building a movement to shift the AI ecosystem towards equitable and accountable AI."* AJL.org

RESOURCES: Coded Bias Documentary, Facial Recognition Technologies: A Primer
TAG: Digital Citizenship

AlgorithmWatch (@algorithmwatch) *"AlgorithmWatch is a non-profit research and advocacy organization that is committed to watch, unpack and analyze automated decision-making (ADM) systems and their impact on society."* Algorithmwatch.org/en

RESOURCE: Automating Society Report 2020
TAG: Digital Citizenship, Content Moderation

All Tech Is Human (@AllTechIsHuman) *"All Tech Is Human is non-profit committed to building the Responsible Tech pipeline; making it more diverse, multidisciplinary, and aligned with the public interest. We unite a broad range of stakeholders to co-create a better tech future. Our projects include are large community Slack group, regular summits and mixers, a mentorship program, open working groups that produce reports, a job board, and university ambassadors program.* AllTechIsHuman.org

RESOURCES: Improving Social Media, Responsible Tech Guide, Responsible Tech Job Board
TAG: Digital Citizenship

Allen Institute for Artificial Intelligence (@allen_ai). *"AI2 is a non-profit research institute founded in 2014 with the mission of conducting high-impact AI research and engineering in service of the common good."* Allenai.org

RESOURCE: Research Papers
TAG: Product Design, Tech Augmentation

AnitaB.org (@AnitaB_org) *"At AnitaB.org, we envision a future where the people who imagine and build technology mirror the people and societies for whom they build it. Our social enterprise supports women in*

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technical fields, as well as the organizations that employ them and the academic institutions training the next generation. A full roster of programs helps women and non-binary technologists grow, learn, and develop their highest potential." AnitaB.org

RESOURCES: Career Toolbox, AnitaB.org Mentorship
TAG: Digital Citizenship, Broken Business Model, Product Design, Tech Augmentation

Aspen Digital (@AspenDigital, @AspenInstitute) *"We empower policy-makers, civic organizations, companies, and the public to be responsible stewards of technology and media in the service of an informed, just, and equitable world.* Aspeninstitute.org/programs/aspendigital/

RESOURCE: Commission on Information Disorder Final Report
TAG: Digital Citizenship, Content Moderation

Aspen Tech Policy Hub (@AspenPolicyHub) *"The Aspen Tech Policy Hub is a West Coast policy incubator, training a new generation of tech policy entrepreneurs. Modeled after tech incubators like Y Combinator, we take tech experts, teach them the policy process through fellowship and executive education programs in the Bay Area, and encourage them to develop outside-the-box solutions to society's problems."* AspenTechPolicyHub.org

RESOURCE: Aspen Tech Policy Hub Projects
TAG: Digital Citizenship

Atlantic Council (@AtlanticCouncil) *"The Atlantic Council promotes constructive leadership and engagement in international affairs based on the Atlantic Community's central role in meeting global challenges. The Council provides an essential forum for navigating the dramatic economic and political changes defining the twenty-first century by informing and galvanizing its uniquely influential network of global leaders."* Atlanticcouncil.org

RESOURCES: GeoTech Center - Tech, Data, People, Prosperity, Peace, Digital Forensic Research Lab, Focus Area - Technology and Innovation
TAG: Digital Citizenship, Content Moderation

Berggruen Institute (@berggruenInst) *"The Berggruen Institute was established in 2010 to develop foundational ideas about how to reshape political and social institutions in the face of these great transformations. We work across cultures, disciplines and political boundaries, engaging great thinkers to develop and promote long-term answers to the biggest challenges of the 21st Century."* Berggruen.org

RESOURCE: The Berggruen Fellowship Program
TAG: Digital Citizenship

Berkman Klein Center for Internet & Society (Harvard) (@BKCHarvard) *"The Berkman Klein Center's mission is to explore and understand cyberspace; to study its development, dynamics, norms, and standards; and to assess the need or lack thereof for laws and sanctions. We are a research center, premised on the observation that what we seek to learn is not already recorded. Our method is to build out into cyberspace, record data as we go, self-study, and share. Our mode is entrepreneurial nonprofit."* Cyber.havard.edu

RESOURCES: Digital Citizenship and Resource Platform, Projects and Tools
TAG: Digital Citizenship, Content Moderation

Better Images of AI (@ImagesofAI) *"A collaboration between various global academics, artists, diversity advocates, and non-profit organisations. It aims to help create a more representative and realistic visual language for AI systems, themes, applications and impacts. It is now starting to provide free images, guidance and visual inspiration for those communicating on AI technologies. At present, the available downloadable images on photo libraries, search engines, and content platforms are dominated by a limited range of images, for example, those based on science fiction inspired shiny robots, glowing brains and blue*

backgrounds. These tropes are often used as inspiration even when new artwork is commissioned by media or tech companies." betterimagesofai.org

RESOURCE: Get Involved
TAG: Digital Citizenship, Product Design, Tech Augmentation

Better Tech Network *"Better Tech Network is a global collective of interdisciplinary students and young professionals leading conversations and taking action towards a brighter tech future. Our network encourages people to rethink technology through awareness, empowerment, and advocacy."*
bettertech.network/

TAG: Digital Citizenship

TheBridge (@TheBridgeWork) *"TheBridge is a non-partisan organization breaking down silos and connecting professionals across technology, policy and politics — building stronger, more collaborative relationships...We convene regular discussions and events, host a job board that helps employers find top talent and job-seekers make a career pivot at this intersection, host TheBridge Leaders directory, a searchable online directory with leaders to know in the ecosystem, and many other resources for the community."* Thebridgework.com

RESOURCES: TheBridge Leaders Directory, Job Board
TAG: Digital Citizenship

Build Tech We Trust (@buildtechtrust) *"We are a collective of tech CEOs, activists, changemakers, and workers who believe the time to act to counter the hate and terrorism is now. We believe technology should improve the human experience and quality of life for everyone, and that tech companies and leaders should take responsibility for the harm caused by their platforms and tools. We believe technology has the power to transform our lives for the better, but only if we prioritize people over the gains for the few. Today, we invite you to join us in changing the way we build and use tech."* BuildTechWeTrust.com

RESOURCE: Readings and Resources
TAG: Content Moderation, Tech Augmentation

Center for AI and Digital Policy (theCAIDP) *"The Center for AI and Digital Policy aims to promote a better society, more fair, more just — a world where technology promotes broad social inclusion based on fundamental rights, democratic institutions, and the rule of law."* Caidp.org

RESOURCES: AI Frameworks, Artificial Intelligence and Democratic Values - 2021 report
TAG: Product Design

Center for Critical Internet Inquiry (@C2i2_UCLA) *"UCLA Center for Critical Internet Inquiry (C2i2) is an intersectional research community committed to reimagining technology, championing racial justice, and strengthening democracy through a mix of research, culture, and policy."* c2i2.ucla.edu/

RESOURCE: *"Minderoo Initiative on Technology and Power at the UCLA Center for Critical Internet Inquiry investigates the social impact of digital technologies on communities and the broader public good."*
TAG: Digital Citizenship, Product Design

Centre for Data Ethics and Innovation (CDEI) (@CDEIUK) *"The CDEI is a government expert body enabling the trustworthy use of data and AI. Its multidisciplinary team of specialists, with expertise in data*

and AI policy, public engagement, computational social science and software engineering, are supported by an advisory board of world-leading experts to deliver, test and refine trustworthy approaches to data and AI governance, working with organisations across the UK." gov.uk/government/organisations/centre-for-data-ethics-and-innovation

RESOURCES: AI Barometer 2021, BritianThinks: Trust in data, Press Release: New research reveals the most pressing opportunities and barriers to trustworthy innovation in data and AI
TAG: Product Design, Tech Augmentation

Center for Democracy & Technology (@CenDemTech) *"The Center for Democracy & Technology is a 501(c)(3) working to promote democratic values by shaping technology policy and architecture, with a focus on the rights of the individual. CDT supports laws, corporate policies, and technological tools that protect privacy and security and enable free speech online."* Cdt.org

RESOURCES: Making Transparency Meaningful: A Framework for Policymakers, CDT and AAPD Report – Centering Disability in Technology Policy: Issue Landscape and Potential Opportunities for Action, CDTs collection of reports and insights
TAG: Digital Citizenship

Center for Humane Technology (CHT) (@HumaneTech_) *"Together with our partners, the Center for Humane Technology (CHT) is dedicated to radically reimagining our digital infrastructure. Our mission is to drive a comprehensive shift toward humane technology that supports our well-being, democracy, and shared information environment."* Humanetech.com

RESOURCES: Collection of Resources, Resources for Technologists, Resources for Policymakers, Resources for Parents and Educators
TAG: Tech & Wellbeing, Digital Citizenship, Product Design

Center for Responsible AI (@AIResponsibly) *"NYU/AI aims to make responsible AI synonymous with AI. We conduct interdisciplinary research, engage in AI policy and regulation, and teach different audiences about AI and its social impacts."* airesponsibly.com/

RESOURCE: Collection of Resources
TAG: Digital Citizenship

Center for Technology Innovation (CTI) at Brookings (@BrookingsInst) *"The Center for Technology Innovation (CTI) at Brookings focuses on delivering research that affects public debate and policymaking in the arena of U.S. and global technology innovation. Our research centers on identifying and analyzing key developments to increase innovation; developing and publicizing best practices to relevant stakeholders; briefing policymakers about actions needed to improve innovation; and enhancing the public and media's understanding of technology innovation."* Brookings.edu/about-the-center-for-technology-innovation

RESOURCES: A focused federal agency is necessary to oversee Big Tech, *"TechTank focuses on new developments in science and technology policy and how they affect health care, education, economic development, innovation, and governance."*
TAG: Digital Citizenship, Tech & Wellbeing

Centre for Media, Technology and Democracy *"The Centre for Media, Technology and Democracy produces critical research, policy activism, and inclusive events that inform public debates about the*

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changing relationship between media and democracy, and that ground policy aimed at maximising the benefits and minimizing the systemic harms embedded in the design and use of emerging technologies." Mediatechdemocracy.com

RESOURCE: Projects
TAG: Digital Citizenship, Content Moderation

Center for Technology & Society at the ADL (@ADL) *"ADL's Center for Technology and Society (CTS) leads the global fight against online hate and harassment. In a world riddled with antisemitism, bigotry, extremism and disinformation, CTS acts as a fierce advocate for making digital spaces safe, respectful and equitable for all people."*
ADL.org/who-we-are/our-organization/advocacy-centers/center-for-technology-and-society

RESOURCES: Center on Extremism, Center for Technology and Society, Resource Library, Hate on Display™ Hate Symbols Database
TAG: Content Moderation

Centre for Technomoral Futures (@CentreTMFutures) *"Our mission at the Centre for Technomoral Futures is to unify technical and moral modes of future-building expertise in new models of research, education, design and engagement that directly serve the goals of sustainable, just and ethical innovation...The Centre for Technomoral Futures is a home for developing more constructive modes of innovation: innovation that preserves and strengthens human ties and capabilities; that builds more accessible and just paths to public participation in the co-creation of our futures; and that reinvests the power of technology into the repair, maintenance and care of our communities and our planet."*
efi.ed.ac.uk/centre-technomoral-futures/

RESOURCE: Study with us: New postgraduate Futures programmes
TAG: Broken Business Model, Tech Augmentation

Change the Terms (@changeterms) *"We are a coalition of civil rights, human rights, technology policy, and consumer protection organizations...We believe that tech companies need to do more to combat hateful conduct on their platforms."* changetheterms.org

RESOURCE: Adopt the Terms
TAG: Content Moderation, Broken Business Model

Citizen Lab - University of Toronto *"The Citizen Lab is an interdisciplinary laboratory based at the Munk School of Global Affairs & Public Policy, University of Toronto, focusing on research, development, and high-level strategic policy and legal engagement at the intersection of information and communication technologies, human rights, and global security. We use a "mixed methods" approach to research combining practices from political science, law, computer science, and area studies."* citizenlab.ca/

RESOURCES: Tools and Resources, Research areas include: Targeted Threats, Free Expression Online, Transparency and Accountability, App Privacy and Controls, Global Research Network
TAG: Content Moderation

Children's Screen-time Action Network (@commercialfree) *"The Children's Screen Time Action Network is a collaborative community of practitioners, educators, advocates, and parents who work to reduce excessive technology use harming children, adolescents, and families. We support practical solutions grounded in research by developing strategic partnerships, creating groundbreaking resources, and amplifying the work of our members."* screentimenetwork.org/

RESOURCES: Resource Library, Working Groups
TAG: Content Moderation, Tech & Wellbeing

Common Sense Media (@CommonSense) *"Common Sense is dedicated to helping kids thrive in a world of media and technology. We empower parents, teachers, and policymakers by providing unbiased information, trusted advice, and innovative tools to help them harness the power of media and technology as a positive force in all kids' lives."* Commonsensemedia.org

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RESOURCES: <u>Resource for Parents</u>, <u>Resource of Educators</u>, <u>Resource for Advocates</u>, <u>Tweens, Teens, Tech, and Mental Health: Coming of Age in an Increasingly Digital, Uncertain, and Unequal World 2020</u>
TAG: Content Moderation, Tech Augmentation

ConnectSafely (@ConnectSafely) *"ConnectSafely is a Silicon Valley, Calif.-based nonprofit organization dedicated to educating people about safety, privacy, security and digital wellness. Our resources include research-based safety tips, parents' guidebooks, advice, news and commentary on all aspects of tech use and policy. We offer in-depth guides and "quick-guides" for parents, educators, youth and policymakers along with resources for seniors and other adults. We also produce the twice-weekly ConnectSafely Report for CBS News Radio along with webcasts, podcasts and special events."* <u>Connectsafely.org</u>

RESOURCES: <u>Educator Guides</u>, <u>Printable Quick Guides</u>
TAG: Digital Citizenship, Tech & Wellbeing

Consentful Tech Project (@consentfultech) *"The Consentful Tech Project raises awareness, develops strategies, and shares skills to help people build and use technology consentfully."* <u>consentfultech.io/</u>

RESOURCES: <u>2021 Consentful Tech Curriculum</u>, <u>Building Consentful Tech</u>
TAG: Digital Citizenship

Crisis Text Line (@CrisisTextLine) "Crisis Text Line provides free, 24/7, high-quality text-based mental health support and crisis intervention by empowering a community of trained volunteers to support people in their moments of need." <u>crisistextline.org/</u>

RESOURCES: <u>Get Help</u>, <u>Volunteer</u>, <u>Share Resources</u>
TAG: Tech & Wellbeing, Product Design

CyberWise (@BeCyberwise) *"CyberWise is a resource site for BUSY grownups who want to help youth use digital media safely and wisely. It is the companion site to Cyber Civics, our comprehensive digital literacy program for middle school."* <u>Cyberwise.org</u>

RESOURCE: <u>Learning Hubs</u>
TAG: Digital Citizenship, Content Moderation

Dangerous Speech Project (@dangerousspeech) *"The Dangerous Speech Project was founded in 2010 to study speech (any form of human expression) that inspires violence between groups of people – and to find ways to mitigate this while protecting freedom of expression."* <u>Dangerousspeech.org</u>

RESOURCES: <u>Counterspeech: A Literature Review</u>, <u>Data Detox Kit: Alternative app centre</u>, <u>Data Detox Kit: Wellbeing essentials</u>, <u>Dangerous Speech: A Practical Guide</u>
TAG: Content Moderation

DataEthics4All (@DataEthics4All) *"DataEthics4All™ is on a Mission to raise awareness about the ethical use of data and AI; and tackle inclusion, equity and diversity in tech through a grassroots approach. We're celebrating Ethics 1st™ Leaders of today and creating Ethics 1st™ Leaders of tomorrow."* <u>Dataethics4all.org</u>

RESOURCE: <u>Blog</u>
TAG: Content Moderation

DataKind (@DataKind) "*DataKind® is a global nonprofit that harnesses the power of data science and AI in the service of humanity...Named one of Fast Company's top 10 innovative nonprofits, DataKind helps mission-driven organizations unlock their data science potential ethically and responsibly. We team talented pro bono experts with visionary changemakers to collaboratively design innovative solutions to tough social challenges. Top data scientists have generously volunteered to help organizations reduce costs, automate systems, embrace predictive analytics, and become more efficient and effective overall."* <u>Datakind.org</u>

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RESOURCES: Projects, Volunteer
TAG: Product Design, Tech Augmentation, Digital Citizenship

Data & Society (@datasociety) *"Data & Society is an independent nonprofit research organization. We believe that empirical evidence should directly inform the development and governance of new technology. We study the social implications of data and automation, producing original research to ground informed, evidence-based public debate about emerging technology."* Datasociety.net

RESOURCE: Reorienting Platform Power
TAG: Tech Augmentation, Content Moderation

Derechos Digitales (@derechosdigital) *"Derechos Digitales es una organización no gubernamental que lucha por un internet más abierto, seguro y respetuoso de los derechos humanos. Hacemos investigación, incidencia pública, campañas y proponemos políticas públicas."* Derechosdigitales.org

EN: *"Digital Rights is a non-governmental organization that fights for a more open, safe and respectful internet of human rights. We do research, public advocacy, campaigns and propose public policies."*

RESOURCE: Publicaciones
TAG: Digital Citizenship, Content Moderation

Deepmind (@DeepMind) *"We're a team of scientists, engineers, machine learning experts and more, working together to advance the state of the art in artificial intelligence. We use our technologies for widespread public benefit and scientific discovery, and collaborate with others on critical challenges, ensuring safety and ethics are the highest priority."* Deepmind.com

RESOURCE: Research
TAG: Product Design, Tech Augmentation, Digital Citizenship

DemocracyLab (@DemocracyLab) *"DemocracyLab is a nonprofit organization that has created an open-source platform connecting stakeholders in civic technology. Our initial product seeks to optimize the connection between skilled volunteers and technology projects that advance the public good. Later iterations will focus on the needs of donors, citizens, and institutions."* Democracylab.org

RESOURCE: Tech For Good projects
TAG: Product Design, Tech Augmentation, Digital Citizenship

Design4Democracy (@D4DCoalition)
"Our mission is to ensure that information technology and social media play a proactive role in supporting democracy and human rights globally…As a community we create programs, training, and dialogue that promote the safe and responsible use of technology to advance open, democratic politics and accountable, transparent governments. We work together to take action to counteract challenges to democracy that emerge from new technologies." d4dcoalition.org/

RESOURCE: Coalition Resources
TAG: Content Moderation, Digital Citizenship

Design Justice Network (@design__justice) *"The Design Justice Network challenges the ways that design and designers can harm those who are marginalized by systems of power. We use design to imagine and build the worlds we need to live in — worlds that are safer, more just, and more sustainable. We advance practices that center those who are normally excluded from and adversely impacted by design decisions in design processes. We do this by following processes and creating work that is rooted in shared principles of design justice, growing our network of design practitioners and advocates, convening to maintain and deepen our connections, creating critical publications, and curating exhibitions."* designjustice.org

RESOURCE: Design Justice Network Principles
TAG: Product Design, Digital Citizenship, Content Moderation

Designed with Kids in Mind (@fairplayforkids) *"Designed with Kids in Mind is a multi-pronged campaign*

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which includes public education, pressuring digital media companies to improve their design choices, petitions for Federal Trade Commission rulemakings, and legislative advocacy. There are a number of important bills in Congress that would achieve key elements of a design code. Please check this page for updates about this legislation and how you can help advocate for a design code!"
https://designedwithkidsinmind.us/

RESOURCE: Why we need a design code
TAG: Content Moderation, Digital Citizenship, Product Design

Digital Life Initiative (@dlicornelltech) *"Embedded within the progressive teaching mission of Cornell Tech on Roosevelt Island, the Digital Life Initiative (DLI) was launched in 2017 to analyze the societal tensions arising from existing and emergent digital technologies. Inspired by the core values of justice, democracy, privacy, responsibility, security, and freedom, we support collaborative research projects that explore ethics, policy, politics and quality of life within prevailing socio-technical systems. See below to gain greater insight into the breadth of our research, our visiting fellowships and postdoctoral opportunities, our weekly Digital Life seminar series, and the unique collective of scholars, practitioners and innovators that constitute the DLI Team."* dli.tech.cornell.edu/

RESOURCE: Research Projects
TAG: Product Design, Tech & Wellbeing, Content Moderation, Digital Citizenship

DQ Institute (@DQforAll) *"The DQ Institute (DQI) is an international think-tank that is dedicated to setting global standards for digital intelligence education, outreach, and policies. Working together with international agencies and local partners, DQI builds multi-stakeholder coalitions that advance its mission and help people worldwide. DQI's award-winning educational programs include the #DQEveryChild initiative, which seeks to empower 1 billion children with digital intelligence education. It is registered as a not-for-profit foundation under the Ministry of Finance in Korea as well as a 501(C)(3) not-for-profit charity organization in the US."* DQInstitute.org

RESOURCES: Collaboration Research & Design, #DQEveryChild
TAG: Tech & Wellbeing

Equity Army (@EquityArmy) *"Equity Army is a community of learners, builders, dreamers, and doers who are committed to ensuring everyone, especially historically marginalized people, feel seen, validated, and uplifted as they move through the world and utilize products and services. We work intentionally to inspire and influence equitable product development practices by centering and uplifting historically excluded communities. We are focused on revolutionizing industries by demonstrating the power of human-centric co-creation and collaboration, leading to powerful outcomes for everyone."* equity.army/

RESOURCE: 5 Inclusion Principles for Technology
TAG: Product Design

The Engine Room (@EngnRoom) *"The Engine Room helps activists, organisations, and other social change agents make the most of data and technology to increase their impact...We are a non-profit organisation ourselves, and our international team is made up of experienced and committed practitioners. Since 2011, we have supported more than 200 organisations, big and small, from every corner of the globe."* theengineroom.org/

RESOURCE: Research Case Studies
TAG: Digital Citizenship, Product Design

Fairplay (@fairplayforkids) *"We're the leading watchdog of the children's media and marketing industries. We're organizing huge coalitions standing up to Big Tech and demanding an end to the unfair tactics that manipulate children into spending far too much time online. We're testifying on Capitol Hill about the*

protections children need. We're working with an increasing number of allies in Congress to craft legislation that will curb Big Tech's harmful business model." fairplayforkids.org/

RESOURCE: Resources - Fairplay
TAG: Digital Citizenship, Tech & Wellbeing

Fair Play Alliance (@FairPlayA) *"The Fair Play Alliance is a global coalition of gaming professionals and companies committed to developing quality games. We provide a forum for gaming professionals and companies to work together to develop and share best practices in encouraging healthy communities and awesome player interactions in online gaming."* Fairplayalliance.org

RESOURCE: Disruption and Harms In Gaming Framework
TAG: Digital Citizenship, Tech & Wellbeing, Product Design, Tech Augmentation

Family Online Safety Institute (FOSI) (@FOSI) *"The Family Online Safety Institute brings a unique, international perspective to the potential risks, harms as well as the rewards of our online lives. FOSI's 20+ members, from Amazon to Verizon represent the leading Internet and communications companies in the world. Our work encompasses public policy, industry best practice, and good digital parenting."* Fosi.org/

RESOURCES: Policymaking Around Screen Time Needs More Data and High Quality Research, Tools for Today's Digital Parents, For Professionals, For Parents
TAG: Digital Citizenship, Content Moderation

ForHumanity (@ForHumanity_Org) *"ForHumanity Contributors are people from all over the world. Hundreds of individuals, from all walks of life, have joined the ForHumanity community to advance Independent Audit of AI Systems because it will build an #infrastructureoftrust in our AIs and Autonomous Systems. They are volunteers who believe in the mission of ForHumanity and are bringing their passions, energy, perspectives, industry knowledge, and desire to see risk mitigation in autonomous systems in the areas of Ethics, Bias, Privacy, Trust, and Cybersecurity.."* Forhumanity.center

RESOURCE: Projects
TAG: Product Design, Tech Augmentation

Future of Humanity Institute (@FHIOxford) *"FHI is a multidisciplinary research institute at the University of Oxford. Academics at FHI bring the tools of mathematics, philosophy and social sciences to bear on big-picture questions about humanity and its prospects."* Fhi.ox.ac.uk

RESOURCE: Technical Reports
TAG: Tech Augmentation

The Future of Privacy Forum (@futureofprivacy) *"Future of Privacy Forum and the FPF Education and Innovation Foundation are non-profit organizations that serve as catalysts for privacy leadership and scholarship, advancing principled data practices in support of emerging technologies."* fpf.org

RESOURCE: Best Practices - *"a central repository for privacy-related guidance documents, reports, codes of conduct, and other resources that can help you navigate complex issues and implement initiatives in privacy-protective ways."*
TAG: Digital Citizenship, Product Design, Tech Augmentation

HX Organizations

Future Says (@futuresays_) *"Future Says_ is a space of reclaiming power for the many. One of the ways you'll see Future Says_ out and about is through its alliance of playmakers in the tech ecosystem...The playmakers are committed to trying new things, having hard conversations, and working collaboratively in all the spaces where tech, power, and human rights intersect."* FutureSays.org

RESOURCE: Reimagine Tech
TAG: Digital Citizenship, Product Design, Tech Augmentation

Harmony Labs (@harmonylabs) *"Harmony Labs builds communities and tools to reform and transform media systems. Our mission is to create a world where media systems support democratic culture and healthy, happy people. We're organizing partners and publics to identify and gain consensus on the mechanics of media influence, and the values and design principles that underlie beneficial media. And, we're building solid, sustainable interventions and innovations that start moving us in the direction of media that can serve the public good."*

RESOURCES: Current Projects, Research Network
TAG: Tech Augmentation, Product Design, Tech & Wellbeing

Headstream Innovations (part of SecondMuse) (@HeadstreamInno) *"Headstream, like its namesake, is made up of a confluence of initiatives that you all have helped bring to life in order to create a richer and more meaningful digital experience for young people as they grow up in this particularly challenging moment in time. We welcome your collaboration and hope to inspire you and your endeavor to create more inclusive, accessible and positive digital places for young people alongside us."*

RESOURCE: "*Collab Lab is a new program that will bring the transformational potential of youth co-creation to the tech builders at the largest social media and gaming companies."*
TAG: Tech & Wellbeing, Product Design, Digital Citizenship

Humans for AI (@humans_ai) *"At Humans For AI, we believe that artificial intelligence is going to change life as we know it today! AI will be as pervasive as the Internet and Mobile Technologies. AI's influence is not going to be restricted to tech roles – it is going to change how nurses, pilots, physical therapists, small business owners, investment bankers and farmers all do their jobs...No matter what your job is today, it is going to look significantly different in the future – thanks to underlying AI technologies. The workforce of the future needs to be AI-savvy and that we have a unique opportunity to make this future workforce as diverse as the real world."* humansforai.com

RESOURCES: Alliance for Inclusive AI, Programs
TAG: Product Design, Tech & Augmentation

IEEE (@IEEEorg) *"IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. IEEE and its members inspire a global community through its highly cited publications, conferences, technology standards, and professional and educational activities."* IEEE.org

RESOURCE: 2020 IEEE Annual Report
TAG: Product Design, Content Moderation, Digital Citizenship, Tech Augmentation, Tech & Wellbeing

Institute for Ethics and Emerging Technologies (@IEET) *"The Institute for Ethics and Emerging Technologies is a nonprofit think tank which promotes ideas about how technological progress can increase freedom, happiness, and human flourishing in democratic societies. We believe that technological progress can be a catalyst for positive human development so long as we ensure that technologies are safe and equitably distributed."* IEET.org

RESOURCE: Technoprogressive Policies for the 21st Century, Research Programs
TAG: Digital Citizenship, Tech Augmentation

Institute for Human-Centered AI (@StanfordHAI) *"The mission of HAI is to advance AI research, education, policy and practice to improve the human condition. Led by faculty from multiple departments*

across Stanford, research focuses on developing AI technologies inspired by human intelligence; studying, forecasting and guiding the human and societal impact of AI; and designing and creating AI applications that augment human capabilities. Through the education work of the institute, students and leaders at all stages gain a range of AI fundamentals and perspectives. At the same time, the policy work of HAI fosters regional and national discussions that lead to direct legislative impact." hai.stanford.edu

RESOURCES: 2021 AI Index Report, Fellowship Program, Grant Programs, Stanford Digital Economy Lab
TAG: Digital Citizenship, Tech Augmentation, Product Design

Internet Commission (@iNetCommission) *"The Internet Commission is a not-for-profit organisation founded in 2018 to give digitalisation a new direction. Industries, governments and citizens need the digital transformation of society to be a positive and trustworthy process. Yet, today there is a global information crisis characterised by confusion, distrust, fragmentation, irresponsibility and apathy."* inetco.org/

RESOURCE: Accountability Report 1.0, Evaluation Framework for Content Moderation
TAG: Content Moderation

Institute for the Internet and the Just Society (@internetjustsoc) *"We are committed to working pro bono for a just and democratic digital society. We envision a society founded on respect for human rights, the rule of law and democracy. We advocate inclusion and democratic participation on the level of multistakeholder digital governance. We believe that everyone can thrive and fulfill their potential anywhere in the world provided they have equal opportunities and on the basis of equal rights. We are citizens of the world."* Internetjustsociety.org

RESOURCES: Research programs: Law & Technology, Digital Governance & Democracy, AI & Fairness
TAG: Digital Citizenship, Content Moderation

Jain Family Institute (@jainfamilyinst) *"The Jain Family Institute is a nonpartisan applied research organization in the social sciences. We work to bring research and policy from conception in theory to implementation in society...Our mission is to address pressing social problems by identifying and implementing high-impact interventions that will translate to real world progress. JFI's work sits at the intersection of economics, politics, academia, information technology, finance, and culture to bring promising ideas from theory to practice. We are focused on building proofs of concept, pilots, and actionable knowledge."* jainfamilyinstitute.org/our-work/digital-ethics-and-governance/

RESOURCE: Digital Ethics and Governance
TAG: Digital Citizenship, Broken Business Model

Leverhulme Centre for the Future of Intelligence (CFI) (@LeverhulmeCFI) *"Our mission at the Leverhulme Centre for the Future of Intelligence (CFI) is to build a new interdisciplinary community of researchers, with strong links to technologists and the policy world, and a clear practical goal: to work together to ensure that we humans make the best of the opportunities of artificial intelligence as it develops over coming decades."* Lcfi.ac.uk

RESOURCE: Resources - CFI
TAG: Tech & Augmentation, Product Design

Me2B Alliance (@me2balliance) *"The Me2B Alliance is a nonprofit standards organization fostering the respectful treatment of people by technology. Everyday people and businesses alike join the Alliance in order to make the digital world fairer. The Me2B Alliance performs independent testing of websites, apps and online devices according to how they behave toward people...We award Me2B Certification to products and services that meet our rigorous standards."* me2ba.org/

RESOURCES: Library, Spotlight Report #4: Me2B Alliance Product Testing Report - Deeper Look at K-12 School Utility Apps Uncovers Global Advertising Company From CBS/Viacom, Unexpected Security Risks, What is the Me2B Alliance: A Safety Standard for the Internet
TAG: Digital Citizenship, Content Moderation, Tech Augmentation, Product Design

HX Organizations

Media Justice (@mediajustice) "MediaJustice (formerly Center for Media Justice) is building a powerful grassroots movement for a more just and participatory media —fighting for racial, economic, and gender justice in a digital age." Mediajustice.org

RESOURCES: Big Tech and Platform Accountability, Digital Security and Surveillance
TAG: Digital Citizenship

The Montreal AI Ethics Institute (@mtlaiethics) *"The Montreal AI Ethics Institute is an international non-profit organization democratizing AI ethics literacy. We equip citizens concerned about artificial intelligence to take action because we believe that civic competence is the foundation of change. You are our best shot at a future where humans and algorithms bring out the best in each other."* montrealethics.ai

RESOURCES: The AI Ethics Brief: Democratizing AI Ethics Literacy, State of AI Ethics
TAG: Digital Citizenship

The Mozilla Foundation (@mozilla) *"Mozilla invests in bold ideas, global leaders, and the convening and campaign power of people. For more than two decades, we've worked across borders, disciplines, and technologies to fuel a movement to realize the full potential of the internet."* Foundation.mozilla.org

RESOURCE: When Content Moderation Hurts
TAG: Content Moderation

My Digital TAT2 (@MyDigitalTAT2) *"My Digital TAT2 is addressing how to build healthy habits, critical thinking, and thoughtful online behavior in order to integrate technology into our lives in a constructive way...MDT2 is rooted in a positive approach that empowers technology and focuses on not being afraid of it. Technology and the online world is something that carries a heavy responsibility, yet is an incredibly powerful tool. As families and communities face this world full of new tools, apps, rules, and new challenges, we partner with them to encourage more responsible technology use."* mydigitaltat2.org/

RESOURCE: Resources - My Digital Tat2
TAG: Digital Citizenship, Content Moderation,Tech & Wellbeing

The Net Safety Collaborative *"The Net Safety Collaborative is a US-based nonprofit organization that educates parents and educators worldwide about youth + digital media. We operate two websites: NetFamilyNews.org, established in 1999, and SocialMediaHelpline.com, established in 2015."*

RESOURCES: Literacy & Citizenship, Risk & Safety, Beyond 'The Social Dilemma' to social solutions, Online Safety for 2022: 8 things we need to see
TAG: Digital Citizenship, Content Moderation, Tech & Wellbeing

New America's Public Interest Technology (@NewAmericaPIT) *"New America's Public Interest Tech program works with communities to design, build, and implement better public services and policies via innovative strategies."* newamerica.org/pit

RESOURCES: New Practice Lab initiative, Public Interest Technology University Network (PIT-UN)
TAG: Digital Citizenship

New_Public (@WeAreNew_Public) *"New_ Public is a place for thinkers, builders, designers, and technologists to meet, share inspiration, and make better digital public spaces."* newpublic.org

RESOURCE: Building better digital spaces
TAG: Product Design, Tech & Augmentation

One in Tech (@WeAreOneInTech) *"One In Tech based our mission, objectives, and program strategies on addressing the global needs in technology as shown by evidence-based research. The Foundation built strategic solutions to help combat the massive inequality underrepresented populations experience in access to education in technology and support throughout their careers."* Oneintech.org

RESOURCE: Three Key Programmes
TAG: Digital Citizenship

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Online Hate Prevention Institute (@OnlineHate)*The Online Hate Prevention Institute (OHPI) is an Australian Harm Prevention Charity. We aim to reduce the risk of suicide, self harm, substance abuse, physical abuse and emotional abuse that can result from online hate. Our focus ranges from cyber-racism, online religious vilification and other group-based forms of online hate, through to the cyber-bullying of individuals...OHPI conducts research, runs campaigns and provides public education, recommends policy changes and law reform, and seeks ways of changing online systems to make them more effective in reducing the risks posed by online hate. We aim to find ways to create systemic changes that reduce the risk of harm both now and into the future."* ohpi.org.au

RESOURCES: How to Guides, Measuring the Hate: The State of Antisemitism in Social Media
TAG: Digital Citizenship, Content Moderation

Open Data Institute (@ODIHQ) *"The ODI is a non-profit with a mission to work with companies and governments to build an open, trustworthy data ecosystem. We work with a range of organisations, governments, public bodies and civil society to create a world where data works for everyone."* theodi.org/

RESOURCES: Reports, Tools, Webinars
TAG: Broken Business Model, Digital Citizenship

Open Voice Network (@openvoicenet) *"The Open Voice Network (OVON) seeks to make voice technology worthy of user trust—a task of critical importance as voice emerges as a primary, multi-device portal to the digital and IOT worlds, and as independent, specialist voice assistants take their place next to general purpose platforms."* openvoicenetwork.org

RESOURCE: Initiatives include Interoperability, Privacy, Security, and Voice Registry System
TAG: Product Design, Tech & Augmentation

Oxford Internet Institute (@oiioxford) *"The Oxford Internet Institute is a multidisciplinary research and teaching department of the University of Oxford, dedicated to the social science of the Internet...Digital connections are now embedded in almost every aspect of our daily lives, and research on individual and collective behaviour online is crucial to understanding our social, economic and political world."* Oii.ox.ac.uk

RESOURCE: Education, Digital Life and Wellbeing, Industrialized Disinformation 2020 Global Inventory of Organized Social Media Manipulation
TAG: Digital Citizenship, Tech & Wellbeing

Partnership on AI (@PartnershipAI) *"Partnership on AI (PAI) is a non-profit partnership of academic, civil society, industry, and media organizations creating solutions so that AI advances positive outcomes for people and society. By convening diverse, international stakeholders, we seek to pool collective wisdom to make change. We are not a trade group or advocacy organization."* Partnershiponai.org

RESOURCE: Resource Library
TAG: Digital Citizenship, Product Design, Tech & Augmentation

Partnership on Employment & Accessible Technology (PEAT) (@PEATWorks) *"We foster digital accessibility in the workplace and a vision for "Why" and "How" to create accessible emerging technologies...Our mission is to foster collaborations in the technology space that build inclusive workplaces for people with disabilities. Our vision is a future where new and emerging technologies are accessible to the workforce by design."* PEATworks.org

RESOURCES: Digital Accessibility Toolkits (requires purchase), Inclusive XR in the Workplace, Policy and Workforce Development
TAG: Product Design, Broken Business Model, Digital Citizenship

PeaceGeeks (@PeaceGeeks) *"PeaceGeeks is a nonprofit organization that builds digital tools to empower communities in the pursuit of peace... PeaceGeeks collaborates with communities to put technology tools and digital literacy in the hands of citizens, peacebuilders, human rights defenders, and humanitarian responders. We've led projects that build safer and more stable societies, respond to humanitarian crises,*

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connect displaced and conflict-affected communities, amplify discourse for peace, and share critical knowledge. At PeaceGeeks, we operate on the principle of inspiring local action to solve local problems, with a vision to make peace a lived reality for everyone." peacegeeks.org/

RESOURCE: Projects
TAG: Digital Citizenship

People-Centered Internet (@PCI_Initiative) *"People-Centered Internet works to make sure that the Internet is a positive force for good, improving the lives and well-being of people around the world. Through our global initiatives, we promote connectivity, fight disinformation, add to the discussion about technology ethics, support the development of people-centered applications and initiatives, advise policymakers, and leverage technology to help communities be more resilient."* Peoplecentered.net

RESOURCE: Policy & Governance
TAG: Tech & Wellbeing, Product Design, Digital Citizenship

Pew Research Internet & Technology (@pewinternet) *"Nonpartisan, non-advocacy @pewresearch data about technology and the internet."* Pewresearch.org/internet

RESOURCES: Research Topics, The Role of Social Media in News
TAG: Digital Citizenship

Pollicy (@PollicyOrg) *"Pollicy is a feminist collective of technologists, data scientists, creatives and academics working at the intersection of data, design and technology to craft better life experiences by harnessing improved data."* pollicy.org/

RESOURCES: Digital Rights Are Women's Rights! Toolkit, Reports, Projects
TAG: Digital Citizenship, Tech & Wellbeing

Privacy International (@privacyint) *"We are a London-based charity. We investigate the secret world of government surveillance and expose the companies enabling it. We litigate to ensure that surveillance is consistent with the rule of law. We advocate for strong national, regional, and international laws that protect privacy. We conduct research to catalyse policy change. We raise awareness about technologies and laws that place privacy at risk, to ensure that the public is informed and engaged. To ensure that this right is universally respected, we strengthen the capacity of our partners in developing countries and work with international organisations to protect the most vulnerable."* Privacyinternational.org

RESOURCE: Advertisers on Facebook: who the heck are you and how did you get my data?
TAG: Digital Citizenship

Prosocial Design Network (@DesignProsocial) *"We believe that digital products can be designed to help us better understand one another...That's why we are building an international network of behavioral science and design experts to articulate a better, more prosocial future online; and to disentangle the Web's most glaring drawbacks: from misunderstandings to incitements to hatred."* prosocialdesign.org

RESOURCE: Case studies
TAG: Product Design, Tech Augmentation, Digital Citizenship

Public Knowledge (@publicknowledge) *"Public Knowledge promotes freedom of expression, an open internet, and access to affordable communications tools and creative works. We work to shape policy on behalf of the public interest....Public Knowledge works at the intersection of copyright, telecommunications, and internet law, at a time when these fields are converging. PK's experience in all three areas puts it in an ideal position to advocate for policies that serve the public interest."* PublicKnowledge.org

RESOURCE: Content Moderation
TAG: Content Moderation

Ranking Digital Rights (@rankingrights) *"Ranking Digital Rights (RDR) works to promote freedom of expression and privacy on the internet by creating global standards and incentives for companies to respect and protect users' rights...We do this by ranking the world's most powerful digital platforms and*

telecommunications companies on relevant commitments and policies, based on international human rights standards. We work with companies as well as advocates, researchers, investors, and policymakers to establish and advance global standards for corporate accountability." RankingDigitalRights.org

RESOURCE: Theory of Change, Recommendations for governments and policymakers
TAG: Digital Citizenship

Safer Internet Day (@SaferInternetDay) *"Starting as an initiative of the EU SafeBorders project in 2004 and taken up by the Insafe network as one of its earliest actions in 2005, Safer Internet Day has grown beyond its traditional geographic zone and is now celebrated in approximately 170 countries worldwide… From cyberbullying to social networking to digital identity, each year Safer Internet Day aims to raise awareness of emerging online issues and current concerns."* SaferInternetDay.org

RESOURCE: Gallery of resources
TAG: Content Moderation, Digital Citizenship

Stanford Youth Mental Health (@stanfordyouthmh) *"By creating an innovative health system, and a new culture of health for the adolescent and young adult population, Stanford's CYMHW hopes to create a model for the country in how to better support our young people."* med.stanford.edu/psychiatry/special-initiatives/youthwellbeing.html

Soliya (@Soliya) "Soliya is an international, not-for-profit organization, pioneering the field of Virtual Exchange, seamlessly integrating technology and global education for public diplomacy. We combine the power of interactive technology with the science of dialogue to offer proven cross-cultural exchanges, and empower new generations with social and emotional skills to thrive in digital spaces and build a more human-centered future."

RESOURCE: Join Global Circles; Sign-up for Online Dialogue Facilitation Trainings
TAG: Digital Citizenship, Content Moderation, Tech & Wellbeing

Synthetic Futures (@SynthFutures) "Synthetic Futures is a community of individuals, companies, and organizations dedicated to shaping a positive future for synthetic media in its many different forms. We celebrate synthetic media's immense creative potential when used ethically and responsibly, while also working together to address the technology's malicious uses and unexpected consequences We come together through our quarterly live-streamed events, creating content to help educate wider society, and our community Discord server. We believe the future will be synthesised. Now it's up to us to decide how."
Syntheticfutures.org

TAG: Tech Augmentation

Tech Transparency Project (@TTP_updates) *"The Tech Transparency Project seeks to hold large technology companies accountable…TTP is an information and research hub for journalists, academics, policymakers and members of the public interested in exploring the influence of the major technology platforms on politics, policy, and our lives."* techtransparencyproject.org/

RESOURCE: Find Out Which Groups Get Big Tech Funding
TAG: Content Moderation

Technology Adolescent Mental Wellness (at the University of Wisconsin-Madison) *"The Technology & Adolescent Mental Wellness program (TAM) is driven by the following foundational question: How can technology support adolescent mental wellness? The objectives of the TAM program are threefold. First, we*

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aim to develop community and foster ongoing collaboration among researchers, youth, clinical providers, educators, non-profit organizations, and those in industry, policy, and philanthropy. Second, we aim to promote new research on adolescent technology use and mental wellness." tamprogram.org/

RESOURCES: YAB Initiative, Projects
TAB: Tech & Wellness, Digital Citizenship

Therapists in Tech (@tech_therapists) *"Therapists in Tech offers support to mental health experts in tech to help them thrive. We help clinicians and therapists make the transition to corporate and start-up life...A community that fosters inclusive, authentic connections, amplifies marginalized voices and supports clinicians in tech roles to promote their clinical values, mental health, and ability to advocate for patient-consumers."* therapistsintech.com/

RESOURCE: Join Community
TAG: Product Design, Tech & Augmentation

The Trevor Project (@TrevorProject) *"The Trevor Project is the world's largest suicide prevention and crisis intervention organization for LGBTQ (Lesbian, Gay, Bisexual, Transgender, Queer, and Questioning) young people. The organization works to save young lives by providing support through free and confidential suicide prevention and crisis intervention programs on platforms where young people spend their time: our 24/7 phone lifeline, chat, text and soon-to-come integrations with social media platforms. We also run TrevorSpace, the world's largest safe space social networking site for LGBTQ youth, and operate innovative education, research, and advocacy programs."* thetrevorproject.org/

RESOURCES: The Importance of Safe Language On Social Media, Protect Your Space and Well-Being on Instagram guide
TAG: Digital Citizenship, Tech & Wellbeing, Content Moderation

We and AI (@WeAndAI) *"We and AI is a Non-Profit Organisation set up and run by volunteers from a range of different backgrounds and occupations. We work to increase the awareness and understanding of Artificial Intelligence (AI) amongst the general UK population...This is essential to empower people to have a say in how the technology making decisions about them should be used, and controlled. Help us make sure there is humanity in technology!"* weandai.org

RESOURCE: Race and AI Toolkit
TAG: Digital Citizenship

World Wide Web Foundation (@WebFoundation) *"The World Wide Web Foundation was established in 2009 by web inventor Sir Tim Berners-Lee and Rosemary Leith to advance the open web as a public good and a basic right. We are an independent, international organisation fighting for digital equality — a world where everyone can access the web and use it to improve their lives."* WebFoundation.org

RESOURCE: Tackling Online Gender-Based Violence and Abuse
TAG: Digital Citizenship

Women in AI (@women_in_ai) *"Women in AI (WAI) is a nonprofit do-tank working towards inclusive AI that benefits global society. We are a community-driven initiative bringing empowerment, knowledge and*

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active collaboration via education, research, events, and blogging...At Women in AI we empower women and minorities to become AI & Data experts, innovators and leaders. We encourage ethical applications and responsible use of artificial intelligence." Womeninai.co

RESOURCE: Connect
TAG: Product Design

Women in AI Ethics (@Women_AI_Ethics) *"The Women in AI Ethics™ (WAIE) is a fiscally sponsored project of Social Good Fund, a California nonprofit corporation and registered 501(c)(3) organization with a mission to increase recognition, representation, and empowerment of brilliant women in this space who are working hard to save humanity from the dark side of AI.. It is funded by Lighthouse3, donations, and ticket sales. Donations are tax deductible to the extent allowed by law and used to fund mission-aligned activities, which includes but is not limited to providing free AI Ethics career resources, hosting community events, and funding other initiatives to support women in this space."* Lighthouse3.com/womeninaiethics

RESOURCE: Resources - videos
TAG: Digital Citizenship, Product Design, Broken Business Model, Tech & Wellness

World Economic Forum's Centre for the Fourth Revolution (@WEF) *"How can we maximize the benefits of science and technology for society? That's our mission. To achieve it, we've created a global network of expertise, collaboration and impact based in San Francisco, with centres in 13 countries. We partner with governments, leading companies, civil society, and experts from around the world to co-design and pilot innovative new approaches to policy and governance in the Fourth Industrial Revolution."* Weforum.org/centre-for-the-fourth-industrial-revolution

RESOURCES: Predictions 2022: Data can help address the world's biggest challenges - 5 experts explain how; Global Issues include: Big Data, Blockchain, Data Policy, Digital Inclusion
TAG: Digital Citizenship, Broken Business Model, Product Design

World Ethical Data Foundation (@WEDF_foundation) *"The World Ethical Data Foundation is an organisation devoted to the impartial and balanced exploration of the urgent questions around the use and future of data and information."* Worldethicaldata.org

RESOURCE: Projects
TAG: Digital Citizenship

XR Safety Initiative (@XRSIdotorg) *"XR Safety Initiative (XRSI) is a 501(c)(3) worldwide not-for-profit organization that promotes privacy, security, and ethics in the immersive environments (virtual reality, mixed reality, and augmented reality). Our mission is to help build safe and inclusive experiences so that XR stakeholders are able to make informed and decisions."* Xrsi.org

RESOURCE: The Child Safety Initiative
TAG: Product Design, Tech & Augmentation

Young and Resilient Research Centre [at Western Sydney University] (@YoungResilient)
"The Young and Resilient Research Centre embraces an integrated mode of research and development, education, training and enterprise to research and develop technology-based products, services and policies that strengthen the resilience of young people and their communities, enabling them to live well and participate fully in social and economic life." westernsydney.edu.au/young-and-resilient

RESOURCE: Current Projects
TAG: Digital Citizenship

YTH (Youth Tech Health) (@YTHorg) *"YTH is an initiative of ETR, a non-profit organization committed to improving health outcomes and advancing health equity for youth, families, and communities. YTH is the partner of choice for those in search of new ways to advance the health of youth and young adults through technology."* yth.org

RESOURCE: Online + Offline Safety factsheets
TAG: Digital Citizenship

ALL TECH IS HUMAN

Contributors to this Report

This report was developed through the collaboration of a wide range of contributors each bringing in their unique expertise and perspective. The working group was organized and facilitated by All Tech Is Human. Anne Collier and Dr. Karina Alexanyan served as editors for the HX Report.

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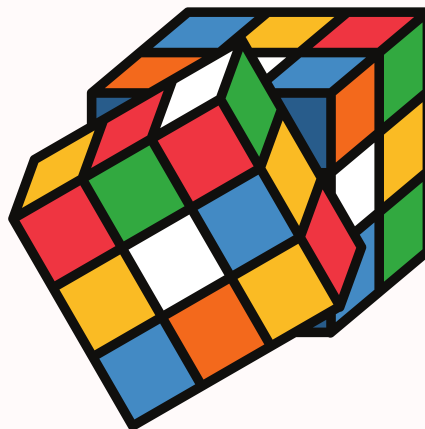**Victoria James**, Director of Professional Learning, MindSpark
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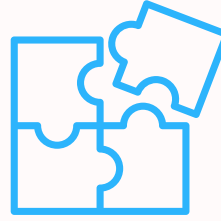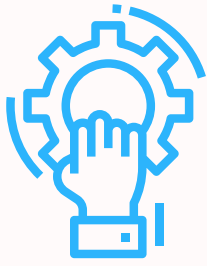**Wanda Barquin**, Vice Chairman, Board of Directors, Magnificat Partnerships
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In Summary

There is undoubtedly a lot that needs to change in order to better align our tech future with our human experience. We view this HX Report, along with the working group that helped create it, as a first step in an evolving, participatory process – a process by which we, a diverse group of stakeholders not only understand a complex problem but also to co-create solutions.

As is likely apparent from reading through the 45 profile interviews collected here, there are multiple angles on both the problem and the solutions, drawing from psychology, economics, law, education, ethics, sociology, and more. This is why we offer the Rubik's Cube analogy, which we believe better represents how to tackle such a complex, cross-disciplinary problem. Here's what we believe needs to happen:

- A paradigm shift is needed to move from the current problem stage to a more productive solution phase. Part of this shift will require accepting the complexity of the situation, and how HX involves the concerns of multiple stakeholders.

- We need to have more conversations that weave together different communities. These communities, as showcased by the six themes of HX we outlined, are related to the same underlying problem but rarely interact with one another. That should change.

- HX offers a more holistic language that incorporates various moving parts, as illustrated through our Rubik's Cube analogy. It is time to start treating our "tech problems" as the interconnected sociotechnical issues they really are.

- Progress toward aligning our tech future with the human experience will require actively co-creating solutions together. This means that if a group is deeply impacted by technology– as this report illustrates with youth perspectives – they need to be part of the process of how change is developed and deployed. No application without representation, or "Nothing about us without us!"

Let's keep the HX conversation going!

"Short for "human experience," HX is an approach to talking about, engaging with, and designing technology in a way that is aligned with our needs as humans — not users."
-HXproject.org

We'd love to hear your feedback about our report and have you involved! This is merely a start; HX is a evolving concept that depends on understanding differences in perspectives and values. HX is always iterating!

In addition, we hope that you reach out to let us know about other research, resources, perspectives, and participants that should be involved in this continuing process.

We also invite you to join the conversation happening on All Tech Is Human's large Slack community (over 2.k member across the globe) with its new #HX channel, along with staying in touch with the latest HX happenings through HXproject.org.

Stay in touch with All Tech Is Human at AllTechIsHuman.org
Write us at Hello@AllTechIsHuman.org
Find the most up-to-date HX Report at HXreport.org

Let's co-create a better tech future.

all tech is **human**